

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

CORE WIRELESS LICENSING)
S.A.R.L.) DOCKET NO. 6:12cv100

-vs-)
) Tyler, Texas
) 1:00 p.m.
APPLE INC.) March 9, 2015

TRANSCRIPT OF TRIAL
AFTERNOON SESSION
BEFORE THE HONORABLE RODNEY GILSTRAP,
UNITED STATES DISTRICT JUDGE

A P P E A R A N C E S

FOR THE PLAINTIFF:

MR. HENRY C. BUNSOW
MS. DENISE M. DE MORY
MR. BRIAN A.E. SMITH
MR. CRAIG Y. ALLISON
BUNSOW DE MORY SMITH
& ALLISON LLP
351 California Street
Suite 200
San Francisco, California 94104

MR. T. JOHN WARD, JR.
WARD & SMITH LAW FIRM
P.O. Box 1231
1127 Judson Road
Suite 220
Longview, Texas 75601-1231

1 FOR THE DEFENDANTS:

2
3 MR. ERIC M. ALBRITTON
4 ALBRITTON LAW FIRM
5 P.O. Box 2649
6 Longview, Texas 75606

7
8 MR. JOSEPH J. MUELLER
9 MS. CYNTHIA D. VREELAND
10 WILMER CUTLER PICKERING
11 HALE & DORR LLP
12 60 State Street
13 Boston, Massachusetts 02109

9

10

11 *****

12

13

14 COURT REPORTERS: MS. SHELLY HOLMES, CSR, TCRR
15 OFFICIAL COURT REPORTER
shelly_holmes@txed.uscourts.gov

15

16 MS. SHEA SLOAN, CSR, RPR
17 OFFICIAL COURT REPORTER
shea_sloan@txed.uscourts.gov

17

18

19

20 Proceedings taken by Machine Stenotype; transcript was
21 produced by a Computer.

21

22

23

24

25

1 P R O C E E D I N G S

2 (Jury out.)

3 COURT SECURITY OFFICER: All rise.

4 THE COURT: Be seated, please.

5 All right. Is there an issue about some part of
6 the opening statement that the Court needs to take up before
7 we bring the jury in?

8 MR. WARD: Yes, Your Honor.

9 During voir dire, Mr. Albritton asked the panel
10 about if anyone knew about Sterling Partners. That's an
11 investor in Core Wireless. It's a private equity group.

12 I asked Mr. Mueller if he intended to go into that
13 during his opening because we thought it was beyond the
14 motion in limine, and he said he did intend to go into it
15 because it's not controlled by Motion in Limine 1.

16 We think it is. We think who invests in these
17 companies, just like we're not going into who the investors
18 are in Apple as we see that's outside of the bounds, and we
19 think it's improper.

20 THE COURT: All right. Mr. Mueller, you have a
21 response for me, please?

22 MR. MUELLER: Yes, Your Honor.

23 Motion in Limine 1 was directed to Apple making, in
24 the words of the motion, derogatory statements, arguments, or
25 characterizations about Core Wireless and its business model.

1 And Judge Love granted that in part with respect to
2 those types of statements. And as we stated at the pretrial
3 conference and I'll state again now, we're not going to make
4 derogatory comments and use terms that would fall within the
5 scope of the motion.

6 But Judge Love expressly stated in his order, Apple
7 may present information related to Core Wireless's general
8 business structure. I think we heard from Core Wireless
9 itself, information related to its general business structure
10 today with respect to Conversant, Microsoft, and Nokia.
11 Sterling Partners owns Conversant, and that's all we intend
12 to bring out.

13 THE COURT: Well, general business structure is not
14 the most precise phrase in the English language. Tell me
15 exactly what you intend to say in opening.

16 MR. MUELLER: Sure. My understanding is Sterling
17 Partners is the controlling owner of Conversant. And it is,
18 as Mr. Ward mentioned, a private equity firm. And all I'm
19 going to say is that Conversant is owned by Sterling
20 Partners, a private equity firm.

21 THE COURT: All right. And you renew your
22 objection, Mr. Ward?

23 MR. WARD: I do, Your Honor.

24 THE COURT: Okay. All right. I'm going to
25 overrule the objection. I'll allow the Defendant to make

1 that statement, but I'm going to limit the Defendant to that
2 statement and nothing more --

3 MR. MUELLER: Thank you, Your Honor.

4 THE COURT: -- all right?

5 Is there anything else we need to do before we
6 bring in the jury?

7 MR. ALBRITTON: No, sir.

8 THE COURT: Mr. Blanton, would you bring in the
9 jury, please?

10 (Jury in.)

11 THE COURT: Please be seated.

12 Ladies and Gentlemen, welcome back. I want to
13 thank you for being prompt. We took a little longer than I
14 anticipated, but we're going to keep the case running on the
15 general timeframe that I gave you and try to stick to the
16 schedule that I talked with you about during jury selection.

17 I now have some preliminary instructions that I
18 want to give you before we start with opening statements from
19 the lawyers and then get on to the evidence in this case.

20 You've now been sworn as the jurors in this case.
21 And as the jury, you are the sole judges of the facts. And
22 as such, you will decide and determine all of the facts in
23 this case.

24 As the Judge, I will give you instructions on the
25 law, decide questions of law that arise during the trial,

1 handle matters of evidence and procedure. I'm also
2 responsible for managing the flow of the trial and
3 maintaining the decorum of the court.

4 At the end of the evidence, I will give you
5 detailed instructions about the law that you must apply in
6 deciding this case, and I'll give you a list of questions
7 that you are then to answer.

8 That list of questions is called the verdict form.
9 And your answers to the questions will need to be unanimous,
10 and those unanimous answers will constitute the verdict in
11 this case.

12 I now want to briefly tell you about what this case
13 involves. This case involves a dispute regarding certain
14 United States patents, as well as allegations by both Core
15 Wireless and Apple that the other has breached its
16 obligations under a contract.

17 I'm going to give you instructions with respect to
18 the patent dispute first, followed by instructions with
19 respect to the parties' allegations of breach of contract.

20 Now, I know that you all saw the patent video this
21 morning, but I want to give you some further instructions now
22 and on the record about a patent and how one is obtained.

23 Patents are either granted or denied by the United
24 States Patent and Trademark Office, sometimes simply referred
25 to as the PTO.

1 A valid United States patent gives the patentholder
2 the right, for up to 20 years from the date the patent
3 application is filed, to prevent others from making, using,
4 offering to sell, or selling the patented invention within
5 the United States or from importing it into the United States
6 without the patentholder's permission.

7 A patent is a form of property called intellectual
8 property. Like other forms of property, a patent can be
9 bought or sold. A violation of the patentholder's rights is
10 called infringement.

11 The patentholder may try to enforce a patent
12 against persons it believes to be infringers by filing a
13 lawsuit in federal court. That's what we have before us in
14 this case.

15 The process of obtaining a patent is patent
16 prosecution. To obtain a patent, one must first file an
17 application with the PTO.

18 The PTO, the United States Patent and Trademark
19 Office, is an agency of the federal government that employs
20 trained Examiners to review patents or review applications
21 for patent.

22 The application includes what is called a
23 specification. The specification contains a written
24 description of the claimed invention telling what the
25 invention is, how it works, how to make it, and how to use

1 it.

2 The specification concludes or ends with one or
3 more numbered sentences. These numbered sentences are the
4 patent claims. When a patent is granted by the PTO, the
5 claims define the boundaries of its protection and give
6 notice to the public of those boundaries.

7 Patent claims may exist in two forms referred to as
8 independent claims and dependent claims. An independent
9 claim does not refer to any other claim in the patent. It is
10 independent. It is not necessary to look to any other claim
11 to determine what an independent claim covers.

12 On the other hand, a dependent claim refers to at
13 least one other claim in the patent. A dependent claim
14 includes each of the limitations of that other claim or
15 claims to which it refers, as well as the additional
16 limitations recited within the -- the dependent claim itself.

17 Therefore, to determine what a dependent claim
18 covers, it's necessary to look at both the dependent claim
19 itself and the independent claim or claims from which it
20 refers or depends.

21 The claims of the patents-in-suit use the words
22 "comprises" and "comprising."

23 "Comprising" means including or containing. A
24 claim that includes the word "comprising" or "comprises" is
25 not limited to methods or devices having only the elements

1 that are recited in the claim but also covers methods or
2 devices that add additional elements.

3 Take, for example, a claim that covers a table. If
4 the claim recites a table comprising a tabletop, legs, and
5 glue, the claim will cover any table that contains these
6 structures, even if the table also contains other structures,
7 such as wheels on the end of the legs.

8 That's a very simple example using -- using the
9 word "comprising" and what it means. In other words, it can
10 have other features in addition to those that are covered by
11 the claim.

12 After the applicant files the patent application
13 with the PTO, an Examiner reviews the application to
14 determine whether or not the claims are patentable, that is
15 to say, appropriate for patent protection and whether or not
16 the specification adequately describes the invention claimed.

17 In examining a patent application, the Examiner
18 reviews certain information about the state of the technology
19 at the time the application was filed.

20 The PTO searches for and reviews this type of
21 information that is publicly available or that is submitted
22 by the applicant. This type of information is called prior
23 art.

24 The Examiner reviews this prior art to determine
25 whether or not the invention is truly an advance over the

1 state of the art at the time. Prior art is defined by law,
2 and I will give you, at a later time, specific instructions
3 on what constitutes prior art.

4 However, in general, prior art includes information
5 that demonstrates the state of the technology that existed
6 before the claimed invention was made or before the
7 application for a patent was filed.

8 A patent contains a list of certain prior art that
9 the Examiner has considered. The items on this list from
10 within the patent are called the cited references.

11 After the prior art search and examination of the
12 application, the Examiner informs the applicant in writing of
13 what the Examiner has found and whether the Examiner
14 considers any claim to be patentable and thus to be allowed.

15 This writing from the Examiner is called an office
16 action.

17 If the Examiner rejects the claims, the applicant
18 has an opportunity to respond to the Examiner to try to
19 persuade the Examiner to allow the claims. The applicant
20 also has the chance to change or amend the claims or submit
21 new claims.

22 This process may go back and forth between the
23 applicant and the Examiner for some time until the Examiner
24 is satisfied that the application meets the requirements for
25 a patent.

1 And in that case, the application issues as a
2 patent, or in the alternative, if -- in the alternative, if
3 the Examiner ultimately concludes that the application should
4 be rejected, then no patent is issued.

5 Sometimes patents are issued after appeals within
6 the Patent and Trademark Office or to a court. The papers
7 generated during these communications back and forth between
8 the Examiner and the applicant are called the prosecution
9 history.

10 The fact that the PTO grants a patent does not
11 necessarily mean that any invention claimed in the patent, in
12 fact, deserves the protection of a patent. While the issued
13 patent is presumed valid under the law, a person accused of
14 infringement has the right to argue here in federal court
15 that a claimed invention in a patent is invalid.

16 It's your job as the jury to consider the evidence
17 presented by the parties and determined independently and for
18 yourselves whether or not the Defendant has proven that a
19 patent is invalid.

20 To help -- to help you follow the evidence, I will
21 now give you a brief summary of the positions of the parties.

22 The party who brings the lawsuit is called the
23 Plaintiff. The Plaintiff in this case is Core Wireless
24 S.a.r.l., who I will refer to simply as the Plaintiff or Core
25 Wireless.

1 The party against whom the suit is brought is
2 called the Defendant. In this action, the Defendant is Apple
3 Inc., who likewise will be referred to simply as the
4 Defendant or as Apple.

5 As I told you during the voir dire this morning,
6 this is a case of alleged patent infringement and breach of
7 contract.

8 The first patent at issue in this case is United
9 States Patent 7,804,850. Now, patents are commonly known by
10 their last three digits, so I'll refer to this patent simply
11 as the '8-5-0 or '850 patent.

12 The second -- the second patent at issue is United
13 States Patent 6,978,143, which I'll refer to as the '143
14 patent.

15 The third patent is United States Patent 7,383,022,
16 which I'll refer to as the '022 patent.

17 The fourth patent is United States Patent
18 7,599,664, which I'll refer to as the '664 patent.

19 And the fifth and last patent at issue in this case
20 is United States Patent 6,266,321, which I'll refer to as the
21 '3-2-1 or the '321 patent.

22 These patents may be referred to at various times
23 as the patents-in-suit or the asserted claims, and these
24 patents generally relate to cellular features or
25 functionality in smartphones and tablets.

1 Now, in a few minutes, Ladies and Gentlemen, each
2 of you will be given a juror notebook, and you'll have a
3 complete copy of each of these five patents-in-suit in your
4 juror notebooks.

5 The Plaintiff in this case, Core Wireless, contends
6 that the Defendant in this case, Apple, is directly and
7 indirectly infringing certain claims of the patents-in-suit
8 by importing, making, and selling products that include a
9 patented technology.

10 Core Wireless also contends that Apple's
11 infringement is willful and that it is entitled to damages as
12 a result of patent -- of Apple's infringement.

13 Apple denies that it's infringing and contends that
14 the patents-in-suit are invalid as being either (1)
15 anticipated by what is called the prior art; or (2) obvious
16 in the light of such prior art. I'll give you more detailed
17 instructions later regarding the meaning of these terms.

18 Apple further contends that certain claims of the
19 patent -- patents are invalid because the patent
20 specification does not have an adequate written description,
21 and Apple contends that Core Wireless is not entitled to any
22 damages.

23 In addition to the dispute over the
24 patents-in-suit, both Core Wireless and Apple accuse each
25 other of breaching contractual obligations that have arisen

1 from either their membership in or their commitments to the
2 European Telecommunications Standards Institute, also
3 referred to as ETSI, E-T-S-I.

4 Core Wireless and Apple each deny that they have
5 breached a contractual obligation to each other.

6 Now, I know that there are several new words and
7 concepts that you've been introduced to, and the Court is
8 going to define and further explain many of these words and
9 concepts as we go forward.

10 The attorneys are likely going to discuss them in
11 their opening statements. Also, the witnesses are going to
12 assist you through their testimony in understanding these
13 words.

14 So do not feel overwhelmed at this stage. It will
15 come together as we go through this trial, I assure you.

16 Your job in this case is to decide whether the
17 asserted claims have been infringed, whether the asserted
18 claims of the patents-in-suit are invalid, and whether or not
19 Core Wireless or Apple have breached the contractual
20 obligations they have agreed to through their membership in
21 or commitments to ETSI, the European Telecommunications
22 Standards Institute.

23 If you decide that any claim of the patents-in-suit
24 have been infringed and is not invalid, then you will need to
25 decide what amount of money damages are to be awarded to Core

1 Wireless as compensation for such infringement.

2 Similarly, if you decide that either Apple or Core
3 Wireless have breached their contractual obligations, you
4 will then need to decide what amount of money damages are to
5 be awarded to the non-breaching party.

6 Now, my job in this case is to tell you what the
7 law is, handle the rulings on evidence and procedure, and to
8 oversee the conduct of the trial as efficiently and
9 effectively as possible.

10 In determining the law, it is specifically my job
11 to determine the meaning of any claim language from within
12 the asserted patents that needs interpretation.

13 I've already determined the meaning of the claims
14 of the patents-in-suit. You must accept the meanings that I
15 give you and use those meanings when you decide whether any
16 particular claim has or has not been infringed and whether or
17 not any claim is invalid.

18 You'll be given a document in a moment that
19 reflects those meanings, and that document will also be
20 included in your juror notebooks.

21 For any claim term for which I have not provided
22 you with a definition or a meaning, you should apply the
23 plain and ordinary meaning. If I have provided you with a
24 definition, however, you are to apply my definition to those
25 terms throughout the case.

1 However, my interpretation of the language of the
2 claims should not be taken as an indication by you that I
3 have a personal opinion or any opinion at all regarding the
4 issues such as infringement and invalidity. Those issues,
5 Ladies and Gentlemen, are yours and yours alone to decide.

6 I'll provide you with more detailed instructions on
7 the meaning of the claims before you retire to deliberate and
8 to reach your verdict.

9 In deciding the issues that are before you, you'll
10 be asked to consider specific legal rules, and I'll give you
11 an overview of those rules now. And then at the conclusion
12 of the case, I'll give you much more detailed information.

13 The first issue you'll be asked to decide is
14 whether Apple has infringed any of the asserted claims of the
15 asserted patents.

16 Infringement is assessed on a claim-by-claim basis,
17 and Core Wireless must show by a preponderance of the
18 evidence that a claim has been infringed. Therefore, there
19 may be infringement as to one claim but no infringement to
20 another claim because, as I say, infringement is assessed on
21 a claim-by-claim basis.

22 There are also a few different ways that a patent
23 can be infringed. I'll explain -- explain the requirements
24 for each of these types of infringement to you in detail at
25 the conclusion of the case.

1 In general, Apple may infringe the asserted patents
2 by making, using, selling, or offering for sale in the United
3 States or importing into the United States a product meeting
4 all the requirements of a claim of the asserted patent. I'll
5 provide you with more detailed instructions on the
6 requirements of -- for infringement at the conclusion of the
7 case.

8 The second issue that you will be asked to decide
9 is whether the asserted patents are invalid. Invalidity is a
10 defense to infringement, therefore, even though the United
11 States Patent and Trademark Office, or PTO, has allowed the
12 asserted claims and even though a patent is presumed to be
13 valid, you the jury must decide whether those claims are
14 invalid after hearing the evidence presented during this
15 case. You may find a patent claim to be invalid for a number
16 of reasons, including because it claims subject matter that
17 is not new or is obvious.

18 For a patent claim to be invalid because it is not
19 new, Apple must show by clear and convincing evidence that
20 all the elements of a claim were sufficient -- are
21 sufficiently described in a single, previous printed
22 publication or patent. We call those items prior art.

23 If a claim is not new, it is said to be
24 anticipated.

25 Another way that a claim can be found to be invalid

1 is that it may have been obvious. Even though a claim is not
2 anticipated because every element of a claim is not shown
3 sufficiently -- is not shown or sufficiently described in a
4 single piece of prior art, the claim may still be invalid if
5 it would have been obvious to a person of ordinary skill in
6 the field of the technology of the patent at the relevant
7 time.

8 You'll need to consider a number of questions in
9 deciding whether the inventions claimed in the asserted
10 patents are obvious. I'll provide you with detailed
11 instructions on these questions at the conclusion of the
12 trial.

13 A patent may also be invalid if its description in
14 the specification does not meet certain requirements. To be
15 valid, a patent must meet the written description
16 requirement. In order to meet this written description
17 requirement, the description of the invention in the
18 specification portion of the patent must be detailed enough
19 to demonstrate that the applicant actually possessed the
20 invention as broadly as claimed in the claims of the issued
21 patents.

22 If you decide that any claim of the patents-in-suit
23 has been infringed and is not invalid -- that is, the
24 presumption of validity has survived -- then you will need to
25 decide what amount of money damages are to be awarded to the

1 Plaintiff to compensate it for the infringement.

2 A damage award must be adequate to compensate a
3 patentholder for the infringement. And in no event may the
4 damage award be less than what the patentholder would have
5 received had it been paid a reasonable royalty for the use of
6 its patent.

7 However, the damages you award, if any, are meant
8 to compensate the patentholder and are not meant to punish
9 the Defendant. You may not include in your award any
10 additional amount as a fine or a penalty above what is
11 necessary to fully compensate the patentholder for the
12 infringement.

13 Moreover, damages cannot be speculative, and Core
14 Wireless must prove the amount of its damages for Apple's
15 alleged infringement by a preponderance of the evidence.

16 I'll give you more detailed instructions on the
17 calculation of damages for Apple's alleged infringement of
18 the patents-in-suit at the conclusion of the trial, including
19 by giving you more specific instructions with regard to the
20 calculations of a reasonable royalty.

21 However, the fact that I'm instructing you now
22 about damages does not mean that Core Wireless is or is not
23 entitled to recover damages.

24 Another issue that you'll be asked to decide is
25 whether Core Wireless or Apple have breached their

1 contractual obligations.

2 In deciding whether or not either party breached
3 such obligations, there are four questions you'll be called
4 upon to answer at the end of the case.

5 The first question is whether Core Wireless and
6 Apple each had contractual obligations.

7 The second question is whether Core Wireless and
8 Apple each violated any of these obligations.

9 The third question is if any of the -- if any of
10 the obligations were violated, whether there is a legal
11 excuse or defense for the violation.

12 And the fourth question is if any obligations were
13 violated and there are no defenses, what are the damages, if
14 any, for the violations?

15 Each party has the burden of proving its breach of
16 contract claim by a preponderance of the evidence. So Core
17 Wireless has the burden of proving its breach of contract
18 claim by a preponderance of the evidence.

19 In other words, if the proof establishes that Core
20 Wireless's claims are more likely true than not true, you
21 should find for -- for Core Wireless as to that claim.

22 Apple also has the burden of proving its breach of
23 contract claim by a preponderance of the evidence. If the
24 proof establishes that Apple's claims are more likely true
25 than not true, then you should find for Apple as to that

1 claim.

2 Again, if you find that either party violated any
3 contractual obligations, you'll be asked to determine what
4 are the damages, if any, for those violations. Those damages
5 also cannot be speculative and must be proved by each party
6 by a preponderance of the evidence.

7 Further, the fact that I'm instructing you about
8 damages does not mean Core Wireless or Apple is or is not
9 entitled to recover damages.

10 You're going to be hearing, Ladies and Gentlemen,
11 from a number of witnesses during this trial. And I want you
12 to keep an open mind while you're listening to the evidence
13 and not decide any facts until you've heard all the evidence.

14 While the witnesses are testifying, remember that
15 you will have to decide the degree of credibility and
16 believability to allocate to the witnesses and the evidence.

17 So while the witnesses are testifying in this case,
18 you should be asking yourselves things like this: Does the
19 witness impress you as being truthful? Does he or she have a
20 reason not to tell the truth? Does he or she have a personal
21 interest in the outcome of the case? Does the witness seem
22 to have a good memory? Did he or she have an opportunity and
23 ability to observe accurately the things they testified
24 about? Did the witness appear to understand the questions
25 clearly and answer them directly? And, of course, does the

1 witness's testimony differ from the testimony of other
2 witnesses? And if it does, how does it differ?

3 These are the kinds of things that you should be
4 thinking about while you're listening to each and every
5 witness during the trial.

6 Also, I want to talk to you briefly about expert
7 witnesses. When knowledge of a technical subject may be
8 helpful to you, the jury, a person who has special training
9 and experience in that particular field -- we refer to them
10 as an expert witness -- is permitted to testify to you about
11 his or her opinions on technical matters.

12 However, you're not required to accept an expert or
13 any other witness's opinions at all. It's up to you to
14 decide whether you believe an expert witness -- or any
15 witness, for that matter -- whether you believe they are
16 correct or incorrect and whether you want to believe or not
17 believe what they say.

18 I anticipate that there will be expert witnesses
19 testifying in support of each side in this case, but it will
20 be up to you the jury to listen to their qualifications. And
21 when they give an opinion and explain the basis for that
22 opinion, you will have to evaluate what they say and whether
23 you believe it and to what degree, if any, that you want to
24 give it weight.

25 During the trial, I also anticipate -- anticipate

1 that there is going to be testimony presented by witnesses
2 through what are called deposition testimony.

3 In trials like this, Ladies and Gentlemen, it's
4 very tough, if not impossible, to get every witness here
5 physically at the same time. So the lawyers for each side,
6 prior to the trial, take the deposition of a witness.

7 In a deposition, they have a court reporter
8 present. The witness is sworn and is under oath, just as if
9 he or she were personally testifying in court. And then the
10 parties ask them question, they give their answers, and it's
11 all recorded.

12 Portions of those video recordings of the questions
13 and answers may be played to you as a part of the trial so
14 that you can see the witness and hear the testimony, even
15 though the witness is not physically present.

16 That deposition testimony is entitled to the same
17 consideration, and insofar as possible, is to be judged as to
18 the credibility, weighed and otherwise considered by you the
19 jury in the same way as if the witness had been present
20 physically and given the testimony from the witness stand in
21 open court here.

22 During the trial of the case, Ladies and Gentlemen,
23 it's possible that the lawyers from time to time will make
24 certain objections, and I will enter rulings on those
25 objections.

1 It's the duty of an attorney for each side in a
2 case to object when other side offers testimony or other
3 evidence which the attorney believes is not proper under the
4 orders of the Court and the Rules of Civil Procedure -- Civil
5 Procedure, and the Rules of Evidence.

6 Upon allowing testimony or other evidence to be
7 introduced over an objection of an attorney, the Court does
8 not, unless expressly stated, indicate an opinion as to the
9 weight or effect of such testimony.

10 As I've said before, you, the jury, are the sole
11 judges of the credibility of all the witnesses and the weight
12 and effect of all the evidence.

13 I do want to compliment the parties on both sides
14 in this case because up until today, they have worked with
15 the Court very diligently so that all the exhibits in this
16 case have been presented to and considered by the Court
17 before the trial began so that when you are shown an exhibit
18 during the trial, we will all be saved the time of a formal
19 presentation, arguments, and rulings by the Court on those
20 exhibits; and that will greatly streamline the trial. It
21 will avoid disruptions, and it will save us all a lot of
22 time. So I compliment both sides for their hard work in that
23 regard.

24 That means that when an exhibit has been shown to
25 you, the jury, during the trial, I have already ruled on the

1 admissibility of it. And then the lawyers for each side will
2 ask questions to put it in context, if they wish.

3 It's still possible, however, that objections may
4 come up during the trial. If I sustain an objection to a
5 question addressed to a witness, then you must disregard the
6 question entirely; and you may draw no inference from or
7 speculate about what the witness would have said if I'd
8 permitted the witness to answer the question.

9 However, if I overrule an objection, then you
10 should consider the question and the answer just as if no
11 objection had been made.

12 You should know, Ladies and Gentlemen, that the law
13 of the United States permits a judge in a court like this, to
14 comment to the jury on the -- the evidence in a case, but
15 such comments from the judge on the evidence are only an
16 expression of the judge's opinions as to the evidence.

17 And the jury may disregard such comments in their
18 entirety, because as I've said before, you, the jury, are the
19 sole judges of the facts, the sole judges of the credibility
20 of the witnesses, and the sole judges of how much weight will
21 be given to the testimony of the witnesses.

22 Also, as I indicated to you earlier, even though I
23 may have the ability to comment on the evidence to you, I am
24 going to try very hard not to comment on any of the evidence
25 or the witnesses throughout the trial. And I'm going to

1 be -- try very hard so at the end of the trial you have
2 absolutely no idea about what I think about the evidence and
3 the testimony because, again, that is your job as the sole
4 determiners of the facts in this case.

5 Now, in front of me, the Court Reporter,
6 Ms. Holmes, is taking down everything that is said. And
7 later there will be a written transcript of these
8 proceedings. However, that transcript is not going to be
9 available to you during your deliberations. The transcript
10 is prepared in case there's an appeal to an appellate court
11 of this trial.

12 So as a result, each of you are going to have to
13 rely on your memories of the evidence.

14 In a moment, you're each going to be given a juror
15 notebook. One of the things in the back of that notebook is
16 a note pad with blank pages upon which you can take notes.

17 It's up to you each of you to decide whether you
18 want to take notes and how detailed you want those notes to
19 be if you decide to take notes.

20 But remember those notes are for your personal use
21 only. You have to rely on your own memory of the evidence is
22 why -- and that's why you should pay particularly close
23 attention to the testimony of each and every witness.

24 You should not abandon your own recollection
25 because somebody else's notes indicate something different.

1 Your notes are to refresh -- refresh your recollection, and
2 that's the only reason you should be keeping them.

3 I'm now going to ask our Court Security Officer to
4 hand out these juror notebooks to you at this time.

5 In these notebooks, Ladies and Gentlemen, you will
6 see that you each have a copy of the five asserted patents
7 that we've talked about.

8 Also, you'll see in these notebooks that you have
9 some pages listing the claim terms. Those are the words that
10 are found in the numbered claims at the back of the
11 patents-in-suit that I've told you about before.

12 Along with each claim term are the definitions that
13 the Court has given you with regard to those terms, and you
14 are to work with those definitions.

15 Also, you'll see that there are pages and witness
16 photographs in there. You should have one page for each
17 witness with a photograph of that witness and their name near
18 the top of the page. The remainder of the page is blank, and
19 you can use that page for notes, if you wish, as well as your
20 notebook in the back. You should also find a pen in there
21 for your use in taking notes.

22 Now, we're going to move on to the opening
23 statements in just a few minutes, and you're going to have
24 plenty of time to look at those notebooks as we go forward.

25 Before we do that, I want to give you a brief

1 roadmap of the trial, how it's going to go and how it's going
2 to be structured, before we have opening statements.

3 After the opening statements, the Plaintiff, Core
4 Wireless, will present its evidence in support of its
5 contentions that some of the claims of the patents-in-suit
6 have been and continue to be infringed by Apple.

7 To prove infringement of any claim, Core Wireless
8 must persuade you that it is more likely true than not true
9 that Apple has infringed that particular claim by a
10 preponderance of the evidence.

11 After Core Wireless has presented its evidence and
12 rested, Apple will then present their evidence, their
13 evidence that the asserted claims of the patents-in-suit are
14 invalid.

15 To prove invalidity of any claim, Apple must
16 persuade you by clear and convincing evidence that the claim
17 is invalid.

18 In addition to presenting evidence of invalidity,
19 Apple will put on its evidence in its part of the case
20 responding to the Plaintiff's proof of infringement and
21 damages.

22 After Apple has put on all of its witnesses and
23 rested, then the Plaintiff, Core Wireless, may put on
24 additional evidence responding to Apple's evidence that the
25 claims of the patents-in-suit are invalid or unenforceable

1 and to offer any rebuttal evidence of -- as to infringement
2 or damages. This is called the rebuttal evidence or the
3 rebuttal case put on by the Plaintiff.

4 After the rebuttal case is finished, then both
5 sides will close, subject to my final instructions, and final
6 jury arguments from counsel. At that time, I will then give
7 you final instructions on the law that applies to this case.

8 Those final instructions are sometimes called the
9 Court's charge to the jury. When I have given that, then the
10 lawyers will present their closing arguments. And after you
11 have heard the closing arguments of counsel for both sides,
12 then you will retire, deliberate upon, and reach your
13 verdict.

14 Also, I want to repeat my earlier instruction to
15 you not to discuss this case at all among yourselves during
16 the trial. Only when all the evidence is in and I direct you
17 to retire to the jury room to deliberate and to return a
18 verdict, only then must you -- should you discuss the case
19 among yourselves.

20 At that point in time, it will be your duty to
21 discuss the case among yourselves; but until then, you are
22 instructed not to discuss the case among yourselves in any
23 shape, form, or fashion.

24 And as I mentioned before we broke for lunch,
25 throughout this week and throughout the trial, as you pass

1 counsel and as you pass the parties, they're not going to
2 speak, they're not going to engage in conversation with you.

3 Don't hold that against them. Don't think that
4 they're being rude or unfriendly. They are simply following
5 the instructions that I've given them.

6 Now, with those instructions, we're going to hear
7 opening statements from the parties at this time. The
8 Plaintiff may now present its opening statement.

9 Would you like a warning on your time, Mr. Bunsow?

10 MR. BUNSOW: I would, Your Honor. If you could let
11 me know when I have three minutes remaining.

12 THE COURT: I will.

13 You may proceed.

14 MR. BUNSOW: May it please the Court.

15 Ladies and Gentlemen, good afternoon. My name is
16 Henry Bunsow, and together with Johnny Ward, Denise De Mory,
17 Brian Smith, we will be presenting the case to you on behalf
18 of Core Wireless, in the interest of Nokia and Microsoft.

19 You were kind enough to tell us a little bit about
20 you. Let me tell you a little bit about me.

21 I've been a patent attorney for over 30 years.
22 Before that, I was an electrical engineer. I've been married
23 for 33 years. And one of my major accomplishments in life is
24 that my wife Katie and I raised two daughters through their
25 teenage years. They have now moved on. One's a lawyer and

1 the other is a nurse, and we're very proud of them.

2 I want to congratulate you at the outset. You're
3 here to perform two very important constitutional goals. One
4 is a -- to decide this jury trial. We're the only country
5 that allows jury trials. And in a very real sense, what you
6 decide in this case will determine how people do business.

7 And that's the purpose of jury trials. Your
8 decision will have ramifications on not only the parties but
9 others in terms of how people do business.

10 Secondly, you're charged with protecting the
11 constitutional guarantees and the constitutional
12 establishment and patent laws of this country. As you heard,
13 the patent laws are over 200 years old. They came from the
14 United States Constitution.

15 Now, Core Wireless is the Plaintiff in this case.
16 Core Wireless has a subsidiary in Plano, Texas, and two of
17 the people that you're going to see throughout the trial are
18 Mr. Brad Johnson and Do Kim. They're sitting right here, and
19 they'll be here throughout the trial.

20 This is a trial about five United States patents.
21 These patents were filed long before Apple had any cellular
22 product. Apple's been using those patents in its products
23 since 2007. We're here to ask you to compensate Core
24 Wireless, Nokia, and Microsoft for the use of those patents
25 over those years. That's really what this case is about.

1 The patent laws go back over 200 years. They were
2 a favorite of Lincoln. In fact, the last client that he
3 represented before he became President was a patentholder.
4 The first patent was issued to Thomas Jefferson. It's an
5 interesting bit of trivia for patent attorneys.

6 Patents are administered, issued by the United
7 States Patent and Trademark Office in Washington, D.C., and
8 it has been charged for over 200 years in making sure that
9 inventions are protected in this country.

10 In this country, over \$5 trillion worth of the
11 economy is generated by companies that rely on their patents.
12 That's over 30 percent of our economy. Patents are
13 important.

14 Patents are a grant of a property right. They come
15 from the United States Government. Patents grant the
16 exclusive right to the owner of the patent for a limited time
17 to prevent others from making, using, selling, or importing
18 the products in the United States.

19 The analogy I like is if you all went home tonight
20 and somebody was living in your living room, you'd want them
21 to get out of there. You'd want them to stop or at least
22 you'd want them to pay for occupying your space. If you have
23 an apartment and they're in your apartment, you want them to
24 pay for it.

25 That's what patents are. When somebody uses the

1 technology of somebody else's patents, they're basically
2 squatting on the patent. And here that's what Apple is doing
3 without payment.

4 Patents protect research and development. In this
5 case, we're going to talk about over 30 years of research and
6 development by Nokia. Starting in the early '80s, Nokia has
7 spent over \$50 billion in research and development, and these
8 are some of the patents that came out of that research and
9 development that protect very important patentable technology
10 and concepts.

11 There are five patents in this case, as I
12 mentioned. Nokia filed for these applications -- for these
13 patents in the United States Patent and Trademark Office.

14 They were duly examined by skilled examiners,
15 different examiners, and they were issued. Some of them
16 were -- they were all issued before Apple began infringement
17 in this case, long before Apple had a cellular product.

18 Well, who is Core Wireless? Core Wireless was
19 formed by Nokia and Microsoft as a company to hold patents,
20 and approximately 1300 standard essential patents were
21 transferred to Core Wireless.

22 The purpose was so that these patents could be
23 licensed to the industry. They were Nokia-developed patents.
24 Microsoft had an investment in Nokia, and their desire was to
25 license others who were out using the technology in the

1 marketplace.

2 They did a beauty contest to see who they would
3 hire, and they ended up hiring Conversant. Conversant has
4 been in the business for over 40 years. They originally made
5 their own equipment and sold it; and, through that, learned
6 the value of United States patents. They began licensing
7 their own technology, and subsequently they became pretty
8 good at it and decided to work for others.

9 You can think of Conversant as a kind of real
10 estate broker.

11 When our daughters got older, we decided to
12 downsize. This year we sold our house. We could have sold
13 it ourselves; but instead, we hired a real estate broker
14 because the broker knew the market, new customers, knew other
15 agents, and knew the legalities, frankly, of how to do a real
16 estate transaction.

17 Our agent sold our house. She earned a commission
18 in doing so. And that's very much what Conversant does.

19 Conversant now owns these Conversant -- the Core
20 Wireless patents, but Conversant is licensing them. And 68
21 percent of the revenues will go to Nokia and Microsoft.

22 John Lindgren, who you met earlier, will be with us
23 throughout the trial. He is the CEO of Conversant. He
24 oversees the Court -- the Core Wireless operations.

25 This case is very important to Conversant and --

1 because Conversant and Core Wireless have made a very strong
2 investment in these patents. In total, they have invested
3 over \$30 million in the 1300 Core Wireless patents in terms
4 of patent prosecution, litigation, and salaries of their
5 employees.

6 We're talking about five patents in this case, so
7 let me tell you a little bit about them. There are the '022
8 and the '664 patents. These patents I am talking about
9 together because they're related patents. They have the same
10 specification.

11 In the cellular system, radios are used. Cellular
12 phones are basically small power radios. These signals can
13 bounce and get distorted, and the '022 and '664 provide a
14 very creative way to determine the quality of the radio
15 channel and make adjustments, as necessary.

16 This capability is in the Apple accused products.
17 The next patent is the '321 patent. This is a very
18 interesting patent. It's a very effective way for saving
19 power.

20 We've all had our cell phones go dead. It's no
21 fun. The part of the cell phone that uses the most power is
22 what's call the amplifier, and this was a problem in cell
23 phones. And you'll hear some testimony about that.

24 In early cell phones, the amplifiers used too much
25 power. The battery went dead. The '321 patent has a very

1 effective technique for increasing the battery life by
2 monitoring the signals that go into the power amplifier.
3 The Apple accused products use this patented technique.

4 The next is the '850 patent. The '850 patent,
5 similarly, is for saving power; but it also allows for more
6 transmissions and more people to use the system.

7 When the traffic is not very heavy, basically what
8 it does is slows down the number of transmissions that come
9 out of your cell phone. You're not transmitting as much.
10 You're not using as much power. And, in addition, others can
11 use the network during this time period.

12 This is a very important technique to the network
13 and to cell phones individually, and this feature is in the
14 Apple accused products.

15 The last patent I'm going to talk about is the '143
16 patent. The '143 patent is really sort of a traffic patent.
17 It decides when and if to use what's called a dedicated
18 channel for uploading or downloading information.

19 You might think of a dedicated channel like the
20 Interstate 75 here. This is in Dallas. When there's a lot
21 of traffic on the regular channel, should you use the
22 dedicated channel? You might want to take the train to work
23 that way so you can get to work on time.

24 The '850 patent -- I'm sorry -- the '143 patent is
25 very similar to that. Under certain circumstances, it

1 decides to use a dedicated channel like when you're uploading
2 or downloading videos and the like. The Apple accused
3 products use the invention of this patent.

4 Together these five patents provide what we will
5 call a better user experience. Apple products are all about
6 user experience. Without these five patents, the user
7 experience would be deficient. It wouldn't be as
8 competitive. And, frankly, they wouldn't sell as many
9 products. It's as simple as that.

10 So what's the proof of infringement in this case?
11 We're going to bring you proof of infringement from multiple
12 sources.

13 We're going to talk about the source code. Through
14 what's called discovery in this case, we have been able to
15 analyze the actual source code used in the Apple products.

16 We have two source code experts, Dr. Jim Olivier,
17 who's here; Dr. Trevor Smedley is here. And they have spent
18 countless hours analyzing the Apple source code that we were
19 able to force Apple to give us in discovery.

20 But that's not all. We also are going to talk
21 about testing that was done. Now, this is not Apple's
22 testing, because you're not going to hear anything about
23 Apple doing testing in this case.

24 They're not going to bring you any test results,
25 even though they have massive testing facilities, to prove to

1 you that they don't infringe. Rather, these are independent
2 test results done by laboratories that Apple paid in order to
3 qualify their products to work on the networks.

4 And those test results will confirm infringement in
5 this case, and we'll have expert testimony on that.

6 Mr. Richard Chandler, for example, will be an
7 expert who will talk about some of the test results in this
8 case.

9 All of these products must be compatible. An Apple
10 product in Germany must be able to talk to a Nokia product in
11 California, whether they're using the AT&T network or the
12 T-Mobile network. And the way that that happens is through
13 an organization called ETSI, that His Honor mentioned a
14 little while ago.

15 Part of the evidence that we will bring to you is
16 that the requirements for this compatibility read on the five
17 patents in this case. If Apple didn't infringe, its products
18 would not be compatible and wouldn't work on the networks the
19 way they should.

20 So what should have happened? Well, originally,
21 Nokia and Apple should have entered into an agreement. As
22 you can see, the priority dates of these patents are 1997,
23 1999, 2005, long before Apple had a cell phone.

24 While Nokia was working in the trenches developing
25 fundamental wireless cellular technology, this is what Apple

1 was doing. Nothing.

2 Apple came out with its cell phone in 2007, long
3 after this technology was developed. They basically jumped
4 on the shoulders of Nokia and used the technology that would
5 make their phones compatible and make them work in these
6 networks.

7 Let me introduce you to Mr. Stephan Schell.
8 Mr. Stephan Schell is a 30(b)(6) witness for Apple. That
9 means it is -- he is a corporate representative who was
10 charged to speak for Apple on these matters, and I want you
11 to listen to what he says about Apple's attitude toward
12 patents of others.

13 (Video clip played.)

14 (Video clip stopped.)

15 MR. BUNSOW: In spite of this disregard for other
16 people's patent rights during their development process,
17 Apple knew that it needed a license to these patents.

18 In 2009, Nokia told Apple it needed a license, and
19 we will show you that letter.

20 A second letter in 2009 in September, Apple told
21 them again that they needed a license. Lists were included
22 with these letters that show the patents. There's the '850;
23 there's the '321 patent; there's the '143; and there's the
24 '022 and the '664 patent.

25 In 2011, Nokia and Apple did enter into a limited

1 license agreement for some of each party's patents. Apple
2 kept patents it thought were important. Nokia kept patents
3 it thought was important.

4 And Nokia told Apple: In spite of this agreement,
5 you still need to license these patents, and those -- that
6 list of patents included the five patents in this case.

7 So on no less than three times, Apple was directly
8 told, starting in 2009, that it needed a license to these
9 patents.

10 But there's more. There's a report called PA
11 Consulting Group. PA Consulting Group is a group that
12 analyzes patents and indicates whether they're standard
13 essential and whether they're important.

14 Apple had possession of an analysis done by this
15 group. In fact, Apple uses this report in its own licensing
16 activities, and they pay quite a bit of money to get it.

17 THE COURT: Three minutes remaining, Counsel.

18 MR. BUNSOW: Thank you, Your Honor.

19 Apple claims it never looked at the database.
20 Apple was sued in 2012. We asked for a meeting with them.
21 We didn't get a meeting. We asked five times for a meeting.
22 We still didn't get a meeting.

23 We will show you that -- through the testimony of
24 Mr. Roy Weinstein, the value of these patents, basically
25 based on license agreements Apple has entered into with

1 others. There are 129,500 units sold at 78 cents, which is
2 the upper limit that Mr. Weinstein will tell you are the
3 damages. That's \$101 million.

4 In response, Apple says there's no infringement of
5 the 13 patents. The Patent Office made 13 mistakes. There
6 are over 50, supposedly, bases for invalidating them.

7 Apple has many other defenses that you'll hear in
8 this case, but I think at the end of the day, you're going to
9 find out that it's all about money, and Apple is simply
10 trying to persuade you that it shouldn't have to pay very
11 much for using these inventions.

12 Apple is not going to bring any employees who know
13 anything about the source code, who know anything about their
14 testing, who know anything about compliance with standards or
15 anything about cellular technology.

16 They're going to bring five highly-paid witnesses,
17 and that's going to be their case. That's what they're going
18 to present to you in this trial.

19 At the end of the day, we're going to ask you to
20 award 101 million in damages through trial. We're going to
21 ask you to find that Apple is a willful infringer, and we're
22 going to ask you to find that Apple did not honor its
23 obligation to the ETSI organization to negotiate in good
24 faith. They refused to meet with us for over two years, and
25 we're now three years into this case.

1 Thank you very much. I appreciate your time.

2 THE COURT: All right. The Defendant may now
3 present its opening statement to the jury.

4 Mr. Mueller.

5 MR. MUELLER: Thank you, Your Honor.

6 May I proceed, Your Honor?

7 THE COURT: You may.

8 MR. MUELLER: Good afternoon. My name is Joe
9 Mueller; and with my colleague, Cindy Vreeland and Eric
10 Albritton, I represent Apple.

11 And with us is Frank Casanova, who's worked at
12 Apple for 25 years. Today he's the senior director of
13 product marketing at Apple, and he's going to be here for the
14 entire trial as a representative of the company.

15 I'll tell you a little bit about myself. I'm from
16 Massachusetts. I live in a small town about an hour north of
17 Boston where my wife and I grew up and are raising our three
18 kids.

19 My wife was a teacher before she's been a
20 stay-at-home mom with our three kids; two boys, 11 and 9, and
21 a 7-year-old daughter. And they're all home under a few feet
22 of snow.

23 It's always hard to be away from them, but I'm glad
24 to be here to present the facts and the evidence in this
25 case. And it's the facts and the evidence that should drive

1 the result.

2 And Mr. Bunsow said a few things during this -- his
3 opening statement that I would encourage you to remember as
4 you see the facts and you see the actual testimony, the
5 actual documents.

6 We believe when you see the actual testimony and
7 the actual documents, when you see the facts, you'll
8 understand why Core Wireless cannot prevail in this case.
9 There is no infringement. Apple is not using any of these
10 patents.

11 Now, you may know something about the Apple iPod --
12 I'm sorry -- iPhone and iPad, and you'll learn more about
13 them in the course of the next week. What's interesting is
14 the technologies that are at issue in this case are not what
15 make the iPhone and the iPad different from other products in
16 the market.

17 What's at issue in this case are basic technologies
18 that allow cellular devices to communicate over cellular
19 networks. And the claim being made by Core Wireless is that
20 these five patents cover aspects of those technologies that
21 allow you to make a phone call, for example.

22 Those are contained in things called standards.
23 And you're going to learn a lot about standards over the
24 course of the next week. And the claim that's being made
25 here is that these five patents cover portions of cellular

1 standards.

2 Those standards are the same or are very similar
3 from product to product, different company's phone to
4 different company's phone.

5 I bought yesterday, down the street at Walgreens, a
6 phone that has the exact same standards that are at issue in
7 this case in the iPhone and the iPad.

8 And those standards in this phone and in the iPhone
9 are in a thing called the baseband chip. It's a chip inside
10 of the device. And you're going to learn more about those.

11 That's where the allegations are centered, in the
12 baseband chip. And the claim being made is that these five
13 patents cover a portion of that chip. But they don't.

14 And let's go through the patents one-by-one at a
15 high level, and of course, we're going to spend more time on
16 them over the course of the week.

17 The '143 patent is a patent that covers a
18 decision-making process for deciding between certain types of
19 communication channels. And in the patent, that process
20 takes place within the cell phone.

21 In the baseband chips used in the Apple products
22 and in the standards at issue in that case, that
23 decision-making process occurs in the network.

24 You may have seen those cell phone towers on the
25 side of the highways or roads. Those are connected to things

1 called base stations or computers, and that's where the
2 decisions happen in the real world. There's no infringement.

3 The next patent is called the '321 patent, and this
4 covers a process for sending information over two and only
5 two communication channels using special codes to spread the
6 information across those channels.

7 In the baseband chips in the Apple products,
8 there's many more than two channels, and they don't use those
9 special codes. The same is true for the standard. Again,
10 there's no infringement.

11 The '022 and '664 patents are related. They have
12 the exact same written description and pictures in those
13 patents, and they both relate to using a special kind of
14 filter for filtering information within a cell phone.

15 It's called a finite length filter, and it's set by
16 reference to something called an indication of signal
17 quality. You'll learn more about this over the course of the
18 case.

19 In the baseband chips in the Apple products, they
20 use exactly the opposite. They use an infinite length
21 filter, and they don't use this indication of signal quality.
22 There's no infringement.

23 And then, finally, in the '850 patent, this covers
24 something called a virtual transmission time interval, or
25 virtual TTI. And in the real baseband chips, in the real

1 standards, they don't use this virtual technique. Again,
2 there's no infringement.

3 Now, for each of these patents, as you're going to
4 see over the course of the case, Core Wireless is stretching
5 the patents beyond what they actually say, beyond what the
6 inventors actually invented. It's stretching the patents to
7 try to cover the Apple products.

8 And by stretching them, they're also covering older
9 ideas of folks who came before Core Wireless and Nokia. And
10 as you learned from the patent video this morning and His
11 Honor's preliminary instructions, you can't take a patent or
12 keep a patent on old or obvious ideas.

13 But by stretching the patents in this fashion,
14 that's exactly what they're doing. And really they want to
15 have it both ways. They want to stretch the patents to
16 capture the Apple products, but they don't want to live with
17 the consequences of that in terms of the older ideas of other
18 folks who came before them. So there's invalidity issues as
19 well.

20 Now, why are they making this stretch? Why are
21 they doing what they're doing? And to answer that, we have
22 to go behind the patents to arrive at the cast of characters
23 and see exactly what happened that led us to this point.

24 So let's start with Apple. Apple was started 35
25 years ago by Steve Jobs and Steve Wozniak, two young guys in

1 California, who built something called the Apple I home
2 computer. It was one of the first home computers.

3 And for the first 25 years of the company, Apple
4 focused on computers, and home computers in particular. And
5 the philosophy of the company was taking powerful computing
6 technologies and making them easier to use and enjoyable for
7 users.

8 Now, over time, they took that approach to other
9 types of devices, other types of consumer electronics
10 devices. And in 2007, they released the iPhone.

11 Now, the iPhone represented a new approach to
12 phones, and it really was an approach to take computing
13 technologies, which Apple was expert in, to phones.

14 And it -- to accomplish this, Apple brought several
15 categories of new features and functionality to these
16 devices.

17 The glass. There were new types of glass surfaces
18 that Apple developed. The metal shape was designed to fit in
19 your hand, be durable, and be attractive to look at.

20 You can see those pictures on the screen. Those
21 are called icons. And each icon represents a computer
22 program that can be activated with your fingers using
23 gestures. And that was a new type of touch interface.

24 And it also involved the programs themselves, these
25 software applications, which over time have grown to include

1 thousands of different programs that users can choose from to
2 make these devices their own and to personalize them.

3 Now, none of this is in any cellular standard.
4 These are all ideas that Apple and others in the industry,
5 over time, who built similar devices, brought to the cellular
6 market. They're not in the standards.

7 In 2010, Apple introduced the iPad, which was like
8 the iPhone, only bigger. It had that same set of features
9 and functions that made for an enjoyable user experience with
10 powerful computing technologies packed into it, and you'll
11 learn more about that over the course of the case.

12 Now, the introduction of the iPhone and the iPad
13 brought new competition, which is always a good thing, to the
14 cellular industry. And there were some traditional cellular
15 companies who sold a lot of phones but weren't able to keep
16 up with this new competition.

17 It wasn't just from Apple. Other companies entered
18 the market as well. One of the companies that struggled to
19 keep up with the new competition was Nokia. Nokia was once
20 the world's largest seller of cell phones. Sold more than
21 anyone in the world. Hundreds of millions of phones.

22 But when Apple and other companies entered the
23 market, Nokia could not as effectively incorporate computer
24 technologies into its cellular devices. And, eventually, it
25 had to sell off its handset business, its cellular phone

1 business to another company.

2 Who did they sell it to? Well, they sold it to a
3 computer company that was trying to move into the cellular
4 industry, and that was Microsoft.

5 Microsoft is one of the world's largest software
6 companies. You may have heard of the Windows software
7 programs. Microsoft is the maker of the Windows programs.

8 Microsoft and Nokia have actually collaborated on
9 certain projects over the years in the computer industry; but
10 in the mobile device industry, they're competitors.

11 And Microsoft bought Nokia's handset business and
12 is trying to sell Microsoft phones today. And they're a
13 second character in our cast of stories -- or a third. We
14 have Apple; we have Nokia; we have Microsoft. There's one
15 more, and that's Conversant.

16 Conversant is a patent licensing firm. You've
17 heard something about patent licensing firms from Mr. Bunsow
18 and Mr. Ward earlier this morning. Conversant is owned by a
19 private equity firm called Sterling Partners. It was
20 formerly known as MOSAID. And when you hear certain
21 deposition testimony, you may hear references to MOSAID,
22 M-O-S-A-I-D. That's Conversant.

23 So now we have our cast of characters. What
24 happened? Well, let's go back to Apple entering the cell
25 industry in 2007. Since then, it has negotiated certain

1 patent licenses with various companies in the industry, and
2 those included Nokia.

3 Back in 2011, Apple and Nokia negotiated what's
4 known as a cross license, and that's an agreement that gave
5 Nokia the right to use certain Apple patents and gave Apple
6 the right to use certain Nokia patents. It's a cross
7 license.

8 As those negotiations were unfolding, Nokia's
9 products out in the marketplace were beginning to struggle in
10 part because of the competition from Apple. And that was the
11 backdrop for these license negotiations.

12 Now, towards the end of the negotiations in 2011,
13 Nokia said to Apple, by the way, we're going to be selling
14 off some patents. We're going to be divesting ourselves of
15 those patents. And those won't be part of the deal.

16 Now, did Nokia say, those patents are going to be
17 sold to a company that could sue you? No. You heard
18 Mr. Ward mention this morning that Conversant bought a
19 fight -- bought a fight.

20 Did Nokia say: You have a fight coming; there's a
21 fight on its way; we're trying to sell off this fight to
22 Conversant and it's coming? Not a word. Did Nokia say:
23 We're going to keep a share of these patents; we're telling
24 you we're divesting; but we're going to keep a share in those
25 patents; and if there's a recovery in that fight, we receive

1 it? Not a word.

2 Did they say anything about Microsoft? Not a word.
3 Conversant? Not a word. But, in fact, that's what happened.

4 Microsoft and Conversant -- Microsoft and Nokia set
5 up Core Wireless, and they sold it to Conversant.

6 Now, Core Wireless, from its name, might sound like
7 it's a wireless company making products. It doesn't. It's a
8 licensing company like Conversant. And it was sold to
9 Conversant for \$20,000 -- about -- in up-front payment.
10 \$20,000.

11 Now, you heard Mr. Bunsow say that they've spent
12 over \$30 million in litigation fees and other expenses, but
13 the up-front payment was about \$20,000 for about 2,000
14 patents. That's about \$10 a patent.

15 Now, it will be up to you to judge if their \$30
16 million in litigation expenses since this, was a wise
17 investment. But the fact is, that portfolio was bought for
18 about \$20,000 or about \$10 a patent. And taking five of
19 those patents, they have come to court and they're asking you
20 the jury to award them a hundred million dollars -- hundred
21 million dollars.

22 Now, there's one more thing that Nokia didn't
23 mention in the negotiations, and this is important. They
24 never took these five patents and said, let us draw your
25 attention to these five particular patents because you're

1 infringing them.

2 You heard Mr. Bunsow say they sent over lists that
3 included those patents. They did. And you'll see the list,
4 and I'd ask you to read them carefully. They include
5 hundreds, if not thousands of patents, and each page is
6 labeled declared essential patents.

7 That meant Nokia was saying, just saying these are
8 declared essential. Doesn't mean they're actually essential,
9 and it certainly doesn't mean they're actually infringed. It
10 never drew Apple's attention to these five patents.

11 In fact, you will hear deposition testimony -- and
12 it may be today -- from the lead negotiators from Apple --
13 from Nokia. Their names are Paul Melin, M-e-l-i-n, and
14 Niklas Ostman, O-s-t-m-a-n. They were asked had they ever
15 seen these five patents; and they said they had not, could
16 not remember ever seeing these patents. It's pretty hard to
17 accuse someone of infringing something you've never seen.

18 And there's a good reason they hadn't accused Apple
19 of infringing these five patents. Apple is not infringing
20 these five patents. And the burden is on Core Wireless to
21 show otherwise, and they won't be able to meet it.

22 I heard Mr. Bunsow refer to testing. Their experts
23 have not performed a single test in this case. It's their
24 burden, their burden to establish infringement.

25 Now, how are they trying to do it? They're trying

1 to refer to standards -- cellular standards and say those
2 patents cover them. And in particular, standards developed
3 at the European Telecommunications Standards Institute, or
4 ETSI.

5 You're going to learn how that organization works,
6 how it operates. And the short of it is companies from all
7 over the world go there and make proposals for different
8 types of ideas that could go into the standards. There's a
9 vote taken, and the proposal that wins becomes part of the
10 standard.

11 Now, you might think from Mr. Bunsow's presentation
12 about Nokia's history in the industry and the standards
13 themselves that you're going to see evidence of proposals
14 being made to ETSI that match the patents, and that ETSI
15 voted to approve those. Well, you won't see that. There's
16 no evidence of any proposal being made to ETSI that matches
17 these five patents and that was accepted by ETSI.

18 We're going to bring to you the former chairman of
19 the board of ETSI, Dr. Michael Walker, who is actually here
20 today. And he will testify how ETSI works, how the rules
21 work, and how they operate.

22 Now, in addition to our evidence about how ETSI
23 works, we're going to take you inside the products
24 themselves. And we're going to play for you, as well as Core
25 Wireless will, Dr. Stephan Schell's testimony.

1 Now, you saw a small clip of his testimony taken
2 out of context just now. I'm going to encourage you to watch
3 all his testimony. He's going to be speaking to you for
4 about 45 minutes or so. He was the former chief wireless
5 architect at Apple, highest position in the wireless group at
6 Apple, and he testified for this case.

7 Now, he's retired from Apple, and that's why he's
8 testifying by deposition. But his testimony will describe
9 how Apple purchases chips from third parties that incorporate
10 the standardized technology. And in particular, purchases
11 baseband chips from Qualcomm and Intel.

12 The testimony you saw, which suggested that he
13 doesn't pay attention to patents, I would suggest to you when
14 you see his actual testimony, speaks to the fact that he's an
15 engineer. He's not a lawyer. He's building products. He's
16 building products, and he's making actual things that folks
17 can use and joy. That was his job, and you'll hear his
18 testimony.

19 Now, as I mentioned, he will explain that Apple
20 buys these baseband chips from two other California
21 companies, Intel and Qualcomm. And you will learn how those
22 chips work, including through the source code and technical
23 expert testimony. You're also going to see some testimony
24 from engineers from Qualcomm. And we'd encourage you to
25 listen to that closely.

1 When you see deposition testimony, including today
2 or tomorrow, that includes designations from Core Wireless,
3 and it also includes designations from us. And we'd
4 encourage you to listen to all of it. These are all
5 important facts and important witnesses, and we believe that
6 when you hear the facts and understand them, you'll
7 understand the problems of Core Wireless's claims.

8 So please, if you could listen closely to the
9 Qualcomm engineers, the Nokia named inventors who are not
10 coming, but who will be testifying by deposition. Listen
11 closely to their testimony.

12 THE COURT: You have three minutes, Counsel.

13 MR. MUELLER: Thank you, Your Honor.

14 This is a lot to process, and we're going to help
15 you with two technical experts, Dr. Wayne Stark from the
16 University of Michigan, a highly accomplished academic and
17 also real-world practitioner of cellular technologies, and
18 he's going to explain the '321 patent, the '022, '664 patent,
19 and the '143 patent, and the reasons why Apple does not
20 infringe.

21 Dr. Edward Knightly from Rice University will
22 address the '850 patent and explain why Apple does not
23 infringe that patent, as well.

24 Now, Mr. Bunsow mentioned this PA Consulting
25 report. I think this is a good example of how they're

1 stretching. It's also a good example of how you have to look
2 at the actual evidence. These are the entries in this report
3 that relate to the patents in this case.

4 '022 and '664, no entry. '143 states: Essential
5 but obvious. Now, it's incorrect with respect to
6 essentiality, and Dr. Stark will explain why. But just look
7 at the words of the report. It says: Obvious. And as you
8 know from His Honor's instructions this morning, and you'll
9 hear again later, you can't get a patent on an obvious idea.

10 '321 patent, unclear. Now, remember, it's Core
11 Wireless's burden to establish on infringement, and unclear
12 is not enough.

13 And the '850 patent, not relevant. So those are
14 the actual words of the report, and the fact that Core
15 Wireless is citing it, is really a good example of just how
16 far they're stretching in this case.

17 Mr. Bunsow mentioned that patents can be like
18 property, and that's certainly true. But this case is like
19 taking your fence line and moving it on to your neighbor's
20 property and then asking for rent. You're not allowed to
21 move the wine. You're not allowed to move the fence. And if
22 you hold Core Wireless true to the actual inventions in these
23 patents, there's no infringement at all.

24 Last set of issues are the contract claims, and
25 here Core Wireless is arguing that even if they can't show

1 that we used the patents, they're still entitled to money.
2 And they're saying this because they say we didn't negotiate
3 with them quickly enough.

4 Well, here's what actually happened. They never
5 picked up the phone or sent an email before filing this
6 lawsuit. They filed the lawsuit with no notice whatsoever.

7 They issued a press release the date the suit was
8 filed, and they had Mr. Bunsow send over an email. That's
9 not good faith. That's not good negotiations. And since
10 then, Apple has met with them, but has learned that the
11 patents are not being used, something which could have been
12 discussed earlier had they reached out before filing the
13 lawsuit.

14 Now, I mentioned ETSI earlier. Core Wireless has
15 made a commitment to ETSI in writing to operate in a fair,
16 reasonable, and non-discriminatory fashion. By suing with no
17 notice and demanding royalties for patents that are not being
18 used, they've breached that commitment. And that's the
19 breach that Apple is requesting that you the jury address, as
20 well.

21 At the end of the day, this case is an attempt to
22 use five patents in litigation as a weapon to collect money
23 for other companies standing behind Core Wireless. And
24 that's not fair. That's not reasonable. And at the end of
25 the day, it's just not right.

1 We're encouraging you to focus on the facts and the
2 evidence; and at the conclusion of that evidence, I'll return
3 before you and request -- respectfully request a verdict in
4 favor of Apple.

5 Thank you.

6 THE COURT: All right. That completes the opening
7 statements from counsel.

8 Does either party wish to invoke the Rule?

9 MR. ALBRITTON: Yes, we do, Your Honor.

10 MR. BUNSOW: Yes, Your Honor.

11 THE COURT: You wish to include or exclude experts
12 in the Rule?

13 MR. ALBRITTON: Exclude experts from the Rule.

14 MR. BUNSOW: Exclude experts.

15 THE COURT: All right. The Rule having been
16 invoked, those of you that are designated as witnesses in
17 this case but are not designated as expert witnesses are
18 required to exit the courtroom and remain outside until you
19 are brought in to testify. Those excluded from this would be
20 designated expert witnesses and any corporate representatives
21 of the parties.

22 So if you are a fact witness, not a corporate
23 representative, you're directed to vacate the courtroom and
24 remain outside at this time until you're brought in to
25 testify.

1 All right. Before the Plaintiff calls their first
2 witness, we're going to take about a 10-minute recess, Ladies
3 and Gentlemen.

4 I'm going to allow you to maintain or -- or place
5 your notebooks in your chairs. There's no need for you to
6 carry them back and forth during a short recess like this.

7 Use this opportunity to get a drink of water and
8 stretch your legs and then we'll be back in here shortly and
9 hear from the Plaintiff's first witness. But the jury is
10 excused for recess at this time.

11 COURT SECURITY OFFICER: All rise for the jury.

12 (Jury out.)

13 THE COURT: All right. Be seated, please.

14 I want to clear up a couple of things at the beginning.

15 First of all, Mr. Mueller, opposing lead counsel is
16 Mr. Bunsow, not Mr. Bunsow (different pronunciation).

17 MR. MUELLER: I apologize. I mispronounced that.
18 It was not intentional.

19 THE COURT: Well, please refer to him by his proper
20 name. You all have been working on this case a long time
21 with each other.

22 Secondly, Mr. Bunsow.

23 MR. BUNSOW: Yes, sir.

24 THE COURT: I saw the charts that we talked about
25 in chambers.

1 MR. BUNSOW: Yes, sir, you did.

2 THE COURT: They went by quickly, but they
3 shouldn't have been there at all.

4 MR. BUNSOW: They should not have been there at
5 all, Your Honor, and I sincerely apologize. When it was --
6 as you could tell, I was as surprised as everybody else; and
7 I tried to click through them quickly.

8 THE COURT: You're responsible for your technical
9 assistants. If something like that happens again, I'll
10 deduct trial time from the Plaintiff.

11 MR. BUNSOW: I understand.

12 THE COURT: All right. We stand in recess for the
13 next 10 minutes.

14 COURT SECURITY OFFICER: All rise.

15 (Recess.)

16 (Jury out.)

17 COURT SECURITY OFFICER: All rise.

18 THE COURT: Be seated, please.

19 Let's bring in the jury, please.

20 COURT SECURITY OFFICER: All rise for the jury.

21 (Jury in.)

22 THE COURT: Please be seated.

23 Plaintiff, call your first witness.

24 MR. BUNSOW: Thank you, Your Honor.

25 Core Wireless calls Mr. Antti Toskala.

1 THE COURT: All right. Is he outside the
2 courtroom?

3 MR. BUNSOW: He is, Your Honor.

4 I have some exhibits for --

5 THE COURT: You may distribute them.

6 MR. BUNSOW: Thank you, Your Honor.

7 THE COURT: Each side has leave to distribute their
8 binders with each witness without requesting it of the Court.

9 MR. BUNSOW: Thank you, Your Honor.

10 THE COURT: That will save us some time.

11 MR. BUNSOW: May I put one on the witness stand?

12 THE COURT: All right. If the witness will come
13 forward, our Courtroom Deputy will administer the oath.

14 (Witness sworn.)

15 THE COURT: Please come around and have a seat at
16 the witness stand.

17 All right, Mr. Bunsow. You may proceed.

18 MR. BUNSOW: Thank you, Your Honor.

19 ANTII TOSKALA, PLAINTIFF'S WITNESS, SWORN

20 DIRECT EXAMINATION

21 BY MR. BUNSOW:

22 Q. Mr. Toskala, will you introduce yourself to the jury,
23 please.

24 A. My name is Antii Toskala and coming from Finland.

25 Q. Do you have a family, Mr. Toskala?

1 A. Yes, I do. I have a wife who works as a midwife; and
2 then three children at the age of 19, 16, and 11 years.

3 Q. Where do you work?

4 A. I work for Nokia Networks based in Espoo, Finland.

5 Q. How long have you worked for Nokia?

6 A. I've been working with Nokia since 1994, so over
7 20 years now.

8 Q. Where did you travel from to be here today?

9 A. I traveled from Helsinki, Finland to London to come here
10 to Dallas.

11 Q. And where are you going when you leave?

12 A. So once we are done today, then I'll be heading for
13 standards meeting in Shanghai, China.

14 Q. Do you regularly attend standards meetings?

15 A. Yes, I do. I have been attending standards meetings
16 since 1997.

17 Q. Are you missing part of the standards meeting by being
18 here?

19 A. Yes. I'm missing part of my meeting that I've been
20 attending every meeting except one since 1988.

21 Q. Why did you miss the other meeting?

22 A. My daughter was born just before the meeting, so then I
23 decided it was a good reason to skip it.

24 Q. Good reason.

25 Are you being paid for your time and inconvenience in coming

1 here?

2 A. Yes, I'm being paid for my time spent here.

3 Q. Would you look at Plaintiff's Exhibit 224, please. This
4 is a pre-admitted exhibit.

5 MR. BUNSOW: May we put it up on the screen,
6 please?

7 Q. (By Mr. Bunsow) Do you recognize Exhibit 224?

8 A. Yes, I do. So this is my CV.

9 Q. So where is Nokia located?

10 A. Nokia is headquartered in Espoo, Finland, but we have
11 offices throughout the world in many other countries.

12 Q. Do you have offices in the United States?

13 A. Yes, we do. We have several offices in United States,
14 the two biggest ones being, to my understanding, one here in
15 Dallas, Texas or Irving, close to Dallas, as well as Chicago,
16 Illinois.

17 Q. How long has Nokia had the facility in Irving, Texas?

18 A. It has been there a very long time, as I can remember.
19 I visited that in 1997, and it was not a new facility at that
20 point in time, so it has been there a long time.

21 Q. What does Nokia do at the Irving facility?

22 A. In Irving facility, we have people working with research
23 and development, developing our cellular infrastructure
24 products, as well as people working also in this area of
25 research and standardization, as well as people, for example,

1 helping our customers here in U.S. and in North America in
2 general, including Canada.

3 Q. Do you know how many people work at the Irving facility?

4 A. Yes, I do. So we have 1,200 people working in the
5 Irving facility for Nokia Networks.

6 Q. Would you tell the jury about your personal educational
7 background, please.

8 A. So I have obtained a master's engineer -- master's
9 degree in electrical engineering with my specialties being
10 telecommunications, digital signal processing, and industrial
11 economics.

12 Q. In your 20 years at Nokia, what are the major positions
13 that you've held?

14 A. Well, I started first when I started with Nokia Research
15 Center after obtaining -- after -- and after obtaining my
16 master's degree, I got a permanent position there as a
17 research engineer.

18 Then was later promoted, 2007, as a senior research
19 engineer in CDMA specialty and then moved in '98 to work from
20 Nokia Research Center to the Nokia Networks, the
21 infrastructure part of the company where I was working as the
22 standardization manager and senior standardization manager
23 all the way until moving 2007 then to work with the joint
24 venture between Nokia and Siemens called Nokia Siemens
25 Networks.

1 Q. What is CDMA?

2 A. CDMA means code division multiple access where devices
3 are transmitting all using the same piece of spectrum
4 simultaneously, but the signals are separated by a code from
5 each other.

6 Q. Is that technology used in cellular telephones?

7 A. Yes. That technology is used in cellular telephones,
8 especially on this third generation technology.

9 Q. Has your research work been in the development of
10 cellular technology?

11 A. Very -- very much so, as in 1994, when I started with
12 Nokia Research Center, I joined the project that was
13 researching use of wideband CDMA technology for third
14 generation mobile communications.

15 Q. Have you written any books on cellular technology?

16 A. Yes, I have written many books. I've actually written
17 six books. I also co-authored with some of the others, but
18 six books where my name is on the cover as -- as an editor
19 and an author as well.

20 Q. If you look at the bottom of Exhibit 224, are some of
21 your books shown there?

22 A. Yes. They are -- three of the books are as shown on --
23 on the bottom of this Exhibit 224.

24 Q. Have you taught classes --

25 A. Four of them, yes.

1 Q. I'm sorry.

2 A. Sorry. Four of them. Not three, yes.

3 Q. Have you taught classes on cellular technology?

4 A. I've given a lot of lectures in different locations.

5 For example, past 15 years, I've been giving every summer a

6 summer course with University of Oxford in the UK, as well as

7 I have been giving numerous lectures internally within the

8 company, of course, as well as externally in Finland, also

9 some locations in Europe, a few places in Asia, Singapore,

10 Malaysia, and also ones in U.S. in Seattle, Washington.

11 Q. By the way, have your books been successful?

12 A. Very much so, especially this -- the left-hand-most

13 W-CDMA for UMTS through its all fifth -- five editions has

14 sold more than 50,000 copies in the English language

15 versions, plus has been translated to Chinese, Korean,

16 Italian, and French.

17 Q. Do these books all deal with cellular technology that's

18 being used today?

19 A. Yes. They all deal with the cellular technology of

20 today in use.

21 Q. Have you received any awards?

22 A. I did receive -- especially one big one was in 2010, I

23 received an award from the LTE World Summit for my individual

24 contribution to this LTE, which is fourth generation mobile

25 telecommunication technology, so for that development.

1 Q. Were you here during my opening statement today?

2 A. Yes. I was listening to that opening statement, yes.

3 MR. BUNSOW: Can we show Slide 8 from my opening,
4 please?

5 Q. (By Mr. Bunsow) Can you tell the jury what's shown on
6 Slide 8 from my opening statement?

7 A. So Slide -- on the screen is showing these numerous
8 cellular phones that Nokia developed during the past decades.

9 I'm not 100 percent sure if every single product is
10 there, but at least all the ones that I can remember are
11 represented there.

12 Q. Prior to 2007, how many different cellular products had
13 Nokia developed?

14 A. I don't have a recollection of exact number of how many
15 cellular products; but, clearly, as we can see, there have
16 been more than a hundred different models being developed.

17 Q. Prior to 2007, how much money had Nokia spent in
18 research and development in the cellular phone area?

19 A. When I was with -- a full year with the company before
20 this joint venture with Siemens came to play, Nokia was
21 spending roughly \$4 billion annually on research and
22 development activity.

23 Q. I'm sorry. How much was that?

24 A. \$4 billion.

25 Q. Did any of the phones developed by Nokia that you know

1 about, have cameras?

2 A. Yes. Nokia did introduce the camera phone to the
3 marketplace in 2002. And -- and since then, most of them
4 started to have a camera as a standard feature after that.

5 Q. And what year was that?

6 A. 2002 was the first camera phone introduced to the
7 marketplace.

8 Q. Did the Nokia phones stream media?

9 A. Yes. The Nokia phones that were developed in this -- in
10 this period -- after that period had the possibility to
11 stream video as -- as -- as well as audio, not -- not -- not
12 necessarily all the cheapest models, but this kind of better
13 ones, including some of the ones that I owned had even
14 capability of connecting to the TV and -- and -- and
15 playing -- play the video from TV from the phone.

16 Q. Could they run applications?

17 A. Yes. There was also possibility to run applications.
18 During those times, the applications were based on the other,
19 the programming language mostly.

20 Q. Who were the companies who were the early pioneers of
21 cellular technology?

22 A. When I was attending standardization from the early days
23 of my career, the big players that were involved were
24 companies like Nokia, Motorola, Lucent, companies like Texas
25 Instruments, Qualcomm also in the -- in the later phase,

1 names like that.

2 Q. Did Nokia make what are called smartphones?

3 A. Yes. Nokia was really the pioneering company of
4 introduction of the smartphones to the industry.

5 Q. In recent years, what's happened to the Nokia handset
6 business?

7 A. So the handset business was having troubles. As I say,
8 it started to decline, and it led that -- as of last year,
9 the handset business then was eventually transferred and sold
10 to Microsoft.

11 Q. Does Nokia still make cellular products other than the
12 handset business?

13 A. We are making cellular products related to this
14 infrastructure, so the base stations that need it for -- for
15 phones to be able to make the calls.

16 Q. What are base stations?

17 A. Well, base stations are like those -- those equipment
18 that -- that really enables -- through which the signal from
19 the phone is then going onwards to the network, be that your
20 home phone or if you're accessing the Internet from the --
21 from your phone.

22 So the base stations then receive the signal from the
23 mobile cellular phone and transmit the signal then to the
24 cellular phone.

25 Q. Are there standards that govern the cellular phones so

1 that they can be compatible with each other?

2 A. Yes. The standards essentially cover so that -- how is
3 the cellular phone communicating with the infrastructure so
4 that, for example, Nokia infrastructure can communicate with
5 the cellular phone being manufactured by Motorola, Samsung,
6 Apple, or whatever is the manufacturer.

7 Q. Is it important today that different manufacturers'
8 phones can communicate over different networks with other
9 manufacturers' phones?

10 A. Yes. That's very vital so that -- so it enables the
11 global market that -- on the other hand, that the same phones
12 can be sold in the USA, in Europe, in China, as well as that
13 if one happens to travel with your phone, then you can also
14 use the network call home. Like, in my case, whether I'm
15 here or whether I'm in China for the rest of the week, I can
16 use the phone based on the standard way of talking with the
17 network.

18 Q. How long has it been important in the cellular industry
19 to have that high level of compatibility between different
20 manufacturers and different networks?

21 A. I guess that has been very important already with the
22 second generation cellular systems. People started to
23 realize that it's important to have a global market that
24 enables these phones to be used globally so that it's not
25 just that the phone can be used in one country by one

1 operator, so that enabled the bigger marketplace and all the
2 other enabled use outside your own operator network when
3 traveling called roaming.

4 Q. Has Nokia contributed its cellular technology to the
5 standards over the years?

6 A. Yes. Nokia has been very actively contributing over the
7 years. Already when I joined the company in '94, I was not,
8 of course, on the day one, experienced enough to contribute
9 to the standardization; but I had colleagues early '94 and
10 before that who had been attending the standards and
11 contributing to create the second, third, and now fourth
12 generation of the mobile phone communications standard.

13 Q. Who were the other companies that contributed their
14 technology to the early compatibility standards?

15 A. Are you now referring to which generation of the --

16 Q. The 3 -- let's talk about the 3G phone.

17 A. So in the 3G standardization, the important players
18 besides Nokia at that time were companies like Ericsson,
19 Siemens, Motorola, and Qualcomm, especially, and -- and then
20 Alcatel from France and Lucent from U.S. that later became
21 this Alcatel-Lucent.

22 Q. Did Apple make any contributions that you're aware of?

23 A. During my work in -- in this third generation
24 development, I was not aware of any Apple contributions to
25 this development of cellular standards, 3G cellular

1 standards.

2 Q. Did you see Apple representatives attending the
3 meetings?

4 A. I was not aware of any Apple representatives attending
5 the meetings that I was attending or chairing during those
6 times.

7 Q. How are the standards created in the meetings?

8 A. Standards are created in a way that in a meeting, they
9 would be on agenda defined by the meeting chairman that what
10 kind of topics are we going to address in this part of the
11 meeting, and then different companies would bring proposals
12 to the meetings, and those would get discussed of how these
13 proposals would address these issues, problems, or some
14 features that we need to introduce through the standard. And
15 at the meeting, then would decide, usually reaching
16 consensus, what is the way -- what solutions would be
17 accepted and included in the standard.

18 Q. What kinds of standard documents result from the
19 meetings?

20 A. So once the standardization on a particular feature is
21 far enough, then standardization group would produce this
22 kind of technical specification that would define how the --
23 in case of radio technology, how this cellular phone is
24 talking to the network and other way around; or it was
25 working on -- on top of already existing standard, it would

1 create what's called change request that would modify already
2 an existing standard and then the new version of the standard
3 would -- would be issued.

4 Q. Do the standards documents typically have a lot of
5 pages?

6 A. They, of course, vary in size. Some of them can be like
7 50 pages, 80 pages. In the worst case, if you're talking
8 about something very, very complicated, it could be even up
9 to -- up to one thousand pages.

10 Q. Is it the number of pages that's important in the
11 standard?

12 A. No, it's not. It's not the number of pages. Sometimes
13 a standard of -- of very short in terms of number of pages
14 could be a very important one, as well.

15 Q. What is important in the standard?

16 A. It's important that the technical content inside the
17 standard so that it's done -- of course, it's a good
18 solution, technically, and, of course, describe clearly
19 enough, as -- as well as so everybody can implement it in the
20 same way.

21 MR. BUNSOW: Your Honor, I neglected to pass up
22 his books to the witness stand. May I do that now?

23 THE COURT: You may.

24 MR. BUNSOW: Thank you.

25 Q. (By Mr. Bunsow) Mr. Toskala, have I handed you two books

1 that you have written, Plaintiff's Exhibits 235 and 236?

2 A. That's right. So -- so these two books are what I've
3 written. The other one is W-CDMA -- W-CDMA for UMTS Fifth
4 Edition from -- from 2010. And the other -- other one is
5 this HSPA+ Evolution to Release 12 that was published last
6 year.

7 Q. Do those books relate to cellular technology that's
8 being used today?

9 A. Yes, they do. They relate very much and describe
10 these -- how this third generation cellular technologies
11 is -- is working as of today.

12 Q. Do those books describe technology that's actually in
13 compatible cellular phones today?

14 A. Yes, those -- those books describe how this third
15 generation standard is -- is working and -- and also in many
16 cases how it's actually performing in -- in actual -- the
17 simulations are actually measurements from the actual
18 cellular phones.

19 Q. Would you look at Plaintiff's Exhibit 235. And, if you
20 would, turn to Page 97. Can you tell the jury what's being
21 discussed at Page 97, Section 6, entitled Physical Layer?

22 A. So Page 97 on this book is the first page of this
23 Chapter 6 of the book that is describing the physical
24 layer -- how -- how the physical layer of this -- why the
25 W-CDMA, the third generation radio technology is -- is

1 operating in this chapter that has been written by me for the
2 book.

3 Q. Does this chapter relate to any of the technology I
4 discussed in the patents that are involved in this suit
5 during my opening statement?

6 A. Yes, it's -- it is created to some of the patents
7 discussed in -- in the opening statement.

8 MR. MUELLER: May we approach, Your Honor?

9 THE COURT: You may.

10 (Bench conference.)

11 MR. MUELLER: Mr. Toskala is not being offered as
12 an infringement or validity expert. In fact, there's been
13 representations made that he would not offer opinions. He's
14 now comparing the patents to -- as it was described,
15 technologies that are being used today.

16 THE COURT: He's clearly a fact witness because he
17 was under the Rule and had to be brought in to testify.

18 MR. MUELLER: That's --

19 THE COURT: What -- what's the response?

20 MR. BUNSOW: He's not testifying about infringement
21 or validity. This was a motion in limine. They tried to
22 exclude him from giving any opinions whatsoever. Judge Love
23 ruled that he could give lay opinions based on his own
24 experience in this industry and the writings, the tech -- the
25 books that he's prepared. That was the ruling from Judge

1 Love.

2 I'm not going to ask him about infringement, and
3 I'm not going to ask him about validity. But I am going to
4 show as part of the analysis under Section 103, recognition
5 of the inventions, that the inventions of these patents are
6 described in his book, which has been widely sold and widely
7 received in the industry.

8 That's a direct bearing on the -- one of the
9 obviousness analyses. And, obviously, they're claiming that
10 these patents are invalid for obviousness.

11 MR. MUELLER: I have no objection to him discussing
12 his book. I do object to linking the book to the patents.
13 That's expert testimony.

14 THE COURT: Well, he may stop short of saying
15 Defendant infringes or the patents are invalid; but if he
16 gives opinions that go to those issues, it seems to me it's
17 the same thing whether he opines as to the ultimate result or
18 not.

19 I'm going to allow him to continue to talk about
20 his book. I do not see that you should be permitted to link
21 his book to the patents per se.

22 MR. BUNSOW: Well, Your Honor, the purpose of this
23 is to show that the technology described in the patents is
24 published in his book and has been well received in the
25 industry. That's really the essence of a 103 recognition of

1 the technology.

2 And that's as far as I ever intended to go was just
3 to -- basically what he will say is that the patent that
4 was -- as I described it in my opening statement and as he
5 understands it, was -- that technology was part of the
6 article that he wrote, and -- and it's in his book.

7 MR. MUELLER: Again, that's expert testimony.

8 THE COURT: I -- well, I think you can have him
9 describe his book, and I do think you can have him indicate
10 whether the patented technology is discussed in his book. I
11 think you have to stop there.

12 MR. BUNSOW: Okay.

13 THE COURT: All right.

14 MR. BUNSOW: Yes, sir.

15 (Bench conference concluded.)

16 THE COURT: All right. Let's proceed.

17 Q. (By Mr. Bunsow) So, Mr. Toskala, I -- I had asked you if
18 you were here when I gave my opening statement and discussed
19 the patents in this case?

20 A. Yes.

21 Q. Does the section that we're talking about here have any
22 relation to the technology in any of those patents?

23 A. Yes. This Chapter 6 on physical layer operation is
24 related to this '321 patent in this case.

25 Q. And does this section talk about a method for

1 controlling the power that's used in the amplifier of the
2 cell phone?

3 A. This section is describing how to -- how we create the
4 signal that the cellular phone is -- is transmitting before
5 the power amplifier, so we would have as power efficient
6 signal as possible so that when we have to transmit as little
7 as possible and as it would be consumed in the device.

8 Q. And how does the article discuss doing that?

9 A. The -- the article will de -- describes later on that
10 how do we generate the signal that is actually provided for
11 the power amplifier, how is the spreading and modulation done
12 when we have to send simultaneously confirmed data -- data
13 information so that when we are making a phone call, for
14 example, when one -- when I'm calling -- calling home so that
15 how is the phone transmitting to the network consuming as
16 little as possible energy. So -- so that we have a -- yes,
17 limits the energy consumption of the phone.

18 Q. And who invented that technology?

19 A. This was a technology that -- that Nokia was very much
20 investing and -- and then we really promoted that -- that
21 part of the technology to standards and got it accepted
22 there, as well.

23 Q. And did that technology become the '321 patent in this
24 case?

25 A. That's right, so that -- so that belongs in the '321

1 patent.

2 MR. MUELLER: Your Honor, I object.

3 THE COURT: Overruled.

4 Q. (By Mr. Bunsow) Would you turn to Chapter 7 in your
5 book, please? Can you tell the jury at a high level what
6 technology is described in Chapter 7 of your book?

7 A. So Chapter 7 is describing this radio interface
8 protocols of 3G or -- or W-CDMA radio which means this --
9 this kind of high layer signaling between the cellular phone
10 and -- and -- and the network that would include, for
11 example, selling the network, selling -- network selling for
12 the cellular phone, for example, to connect to another base
13 station that is moving -- moving in the network.

14 Q. And does this chapter relate to any of the patents in
15 this case?

16 A. Yes, this chapter is related to this '143 patent in this
17 case.

18 Q. Do you remember on the -- when I was talking about the
19 '143 patent, I showed the example of the crowded highway and
20 the -- and the train that went on the dedicated channel?

21 A. Yes, I do remember that part of the example.

22 Q. Is that discussed in this chapter?

23 A. This chapter is -- is describing the same manner in --
24 in a sense describing this state or -- or channel selection
25 that how -- how we are selecting the -- what kind of channel

1 the device or the cellular phone is using when it needs to
2 transmit data to the network or receive data.

3 Q. And does that provide advantages to users of cell
4 phones?

5 A. Yes, it does. As it's very important that we are
6 selecting a correct channel so that if the device or the
7 cellular phone has only little data to transmit, if we
8 allocate the very high -- high capacity channel for the
9 cellular phone, then it's wasting lots of resources and --
10 and may prevent other users of accessing the network.

11 If, on the other hand, allocate very small channel,
12 small pipe for a device when there's lots of data to
13 transmit, then it takes very long time for a device to be --
14 to transmit this -- this data.

15 Q. As a user, how does that affect my user experience when
16 I use a cell phone like the Apple phone, for example?

17 A. Basically by selecting appropriate channel, the phone is
18 more responsive for the end user. So if we are sending the
19 picture -- high resolution picture that we have taken with my
20 camera to somebody, when we're able to select the big enough
21 channel when there's a big picture to be transmitted, then
22 the picture goes -- is -- is being transmitted quickly and --
23 and not -- and are not taking long time.

24 On the other hand, if you would select always a big part
25 when we only have tiny piece of information to be

1 transmitted, then network would become very loaded and
2 sometimes might prevent myself accessing the network if -- if
3 always allocate a very big channel for somebody who is only
4 little bit of information to be transmitted.

5 Q. And how does -- how is the user experience impacted by
6 the use of the '321 technology that's described in your book?

7 A. So the '321 technology is impacted -- the user
8 experience in, I would say in -- in two very practical ways.

9 So on the other hand, when I'm calling with my phone, so
10 that even if I have a little bit longer phone call, the --
11 first of all, the battery will not -- not -- dies so that the
12 phone will not shut -- shut -- shut down on its own.

13 And also in the sense that if I -- like I hold the phone
14 to my ear longer period of time, if the phone is being
15 operating in very inefficient way, that it would use very
16 inefficient power amplifier. It will not only use more
17 energy from the battery, but the phone will get also
18 uncomfortable hot against my ear because it would be
19 operating in -- in inefficient way and creating lot of heat.

20 Q. Was the technique described in your book that
21 corresponds to the '321 patent incorporated into the
22 standard?

23 A. Yes, it was.

24 Q. And were you involved in that?

25 MR. MUELLER: May we approach, Your Honor?

1 THE COURT: Approach the bench.

2 (Bench conference.)

3 MR. MUELLER: This is exactly the expert testimony
4 that Mr. Bunsow said we're not going to get -- this is
5 exactly what he said we're not going to get. This is now
6 comparing the patent to the standard.

7 MR. BUNSOW: He's a percipient witness on the
8 standard, Your Honor. He knows -- he was in the meetings.
9 That's all I'm asking him is if the technology that -- that
10 he's identified, as described in his book, was incorporated
11 into the standard; and he will say he was in the meeting when
12 it was done.

13 MR. MUELLER: He's not a percipient witness to the
14 patent. He's not a named inventor.

15 THE COURT: Well, I don't think he's entitled to
16 give opinions since he's not qualified as an expert.

17 Clearly, any attempt for him to elicit a lay
18 opinion falls within 701(c) where it's scientific or
19 specialized or technical knowledge. I think that precludes
20 him, given that he's a fact witness and not an expert.

21 I've allowed you to talk about his book and I've
22 allowed you to show that his book covers the technology
23 that's in the patents. But that's where you stop. I don't
24 think you get to go into the standards setting process.

25 MR. BUNSOW: Okay.

1 THE COURT: I'll sustain the objection.

2 MR. BUNSOW: All right. Thank you, Your Honor.

3 (Bench conference concluded.)

4 Q. (By Mr. Bunsow) Are you familiar with a cellular
5 technology that goes by the acronym UMTS?

6 A. Yes, I'm familiar with this UMTS, or universal telephone
7 system standard, as I was developing the standard basically
8 from the beginning in -- in -- in ETSI and then later in
9 3GPP, Third Generation Partnership Project.

10 Q. Was there a time when the UMTS was introduced into
11 cellular phones?

12 A. Yes, UMTS was introduced in the -- in the marketplace
13 in -- around 2002 time frame.

14 Q. Were there problems?

15 A. There were -- there were challenges in -- in the
16 beginning, of course, we get first work -- all the cellular
17 phones against all the networks, but also in -- in the first
18 phase one of the challenges and problems was that this --
19 these phones were able to transmit and receive higher data
20 rates than the earlier devices, but -- but they were
21 consuming a lot of mobile power, as well. The battery was
22 going empty rather quickly.

23 Q. So what was happening to the phones?

24 A. So they were consuming more power energy from the
25 battery so that their battery was going empty relatively soon

1 and you have to -- have to recharge the battery very often.

2 Q. Did Nokia try to solve that problem?

3 A. Yes, we did address the problem as -- as it was
4 recognized clearly an issue impacting the end-user experience
5 as -- as well, in the marketplace.

6 Q. Did Nokia find a solution?

7 A. We did contribute a solution to 3GPP standardization
8 when -- when there was corresponding activity ongoing to --
9 to address the problem.

10 Q. Was that an important improvement to the user experience
11 of cell phones?

12 A. That was important improvement for user experience on
13 the cell phone, as that was able to prolong the battery life
14 and reuse the battery consumption of the -- of the cellular
15 phone -- phone.

16 Q. Would you look at your book, Plaintiff's Exhibit 235, at
17 Page 431, please? And my question is does this solution --
18 does this section relate to the solution that Nokia came up
19 with for this problem with UMTS phones?

20 A. Yes. This -- this -- this chapter is -- is describing
21 the improvement that was done then in the later phase in
22 so-called Release 7 version of the standard to -- to improve
23 the situation.

24 Q. And what was the solution that Nokia came up with?

25 A. The solution was -- worked under the name continuous

1 packet connectivity, and it was this kind of approach of
2 enabling and maximizing the use of discontinuous transmission
3 or reception so that the phone would not need to be that
4 frequently transmitting and receiving from the network and
5 thereby reducing the energy that the power amplifier,
6 especially in the phone, was consuming.

7 Q. And is that technique being used by cell phones today?

8 A. Yes, that is the technology that these modern cell
9 phones that are Release 7 or -- or a newer one -- newer
10 released and compliant are using.

11 Q. Is that solution one of the patents we're talking about
12 in this case?

13 MR. MUELLER: Objection, Your Honor.

14 THE COURT: Overruled.

15 A. Yes. The solution is related to this '850 patent in
16 this court case.

17 Q. (By Mr. Bunsow) The '850?

18 A. '850, yes.

19 Q. Would you turn to Page 15 of your book, Plaintiff's
20 Exhibit 235, please?

21 Is there information there related to the benefits of
22 this technique that Nokia developed that became the '850
23 patent?

24 A. Yes, there is.

25 So on this page, there is this -- after the first full

1 paragraph, there are these bullet points highlighting the
2 benefits.

3 And -- and its first bullet point is indicating that the
4 talk time of the cellular phone could be extended up to 50
5 percent thanks to this use of this -- this continuous
6 transmission and reception.

7 Q. Is an increase of 50 percent in the talk time a
8 significant invention?

9 A. I think it's quite significant improvement, yes, also
10 based on the personal experience.

11 Q. Would you look at your other book, Plaintiff's Exhibit
12 236? And if you would, turn to Pages 313 and 314.

13 Is there information there relating to this '850
14 patented technique?

15 A. Yes, there is.

16 So this -- especially the figure on 314 is -- is
17 actually showing --

18 Q. I'm sorry. Is that 314?

19 A. Yeah, 3-1-4.

20 Q. Okay.

21 A. This is -- is showing -- the topmost figure, it's
22 actually showing this kind of actual measurement results by
23 our customer, being this Steven Paul Lewis here in the USA,
24 for the actual measurements that it perform in one example
25 case.

1 This was this kind of YouTube video playing using --
2 where -- where this feature is either disabled or enabled
3 and -- and -- and whether -- what kind of personal benefits
4 they were able to get with that example.

5 That example is not the most favorable example for this
6 technique because in watching YouTube video, of course, the
7 screen of the mobile is on all the time and if the screen is
8 with this relatively bright setting, it's consuming, of
9 course, lots of energy as well.

10 MR. BUNSOW: So if we look at that chart at the
11 top -- can we look at the top of 314, please?

12 Q. (By Mr. Bunsow) Is this the chart you were talking
13 about?

14 A. Yes. This was the three on the -- on the top of,
15 Page 314, was the chart I was talking about.

16 Q. Can you tell the jury what the -- what's being shown
17 here about the difference between using the patented
18 technique of the '850 patent and not using it?

19 A. So this figure here shows that -- how much energy is
20 drained from the battery with, and then without, the feature.

21 So it shows that when the feature is activated, then the
22 energy -- energy from the battery is less -- is -- is rarely
23 used, so less -- approximately 10 percent less energy could
24 be even saved from the battery with this.

25 Q. Is that significant?

1 A. I think it's -- it's -- it's still significant. I mean,
2 of course, it's not that much as the 50 percent that was
3 quoted earlier; but, on the other hand, it's the most worse
4 case situation that's here.

5 As I mentioned, the bright screen is taking a lot of
6 energy from the battery as well.

7 But if it would compare with this kind of technology, if
8 you could use the phone on with this kind of service for 10
9 hours without technology, then you would allow roughly 11
10 hours when -- when -- with this invention.

11 Q. And what was the phone being used for when it had a 50
12 percent increase in battery life?

13 A. 50 percent was assuming this kind of case, when the
14 screen is not -- not on. So this would be service like --
15 like mapping -- mapping or using the voice service through --
16 through this kind of channels that could use this -- this
17 solution.

18 Q. Would that include making a phone call on the phone?

19 A. That would include making the phone call. I mean, not
20 this -- what we earlier described, the basic phone call; but
21 if one is making a phone call using like a packet-based
22 method, solutions like using a Skype phone call, for example,
23 where if you have just the voice and if you don't need to
24 keep the display on, you can then save relatively much more
25 power than here.

1 Q. Would you look at Page 110 in your book, Plaintiff's
2 Exhibit 236?

3 MR. BUNSOW: Page 110.

4 Q. (By Mr. Bunsow) Can you tell the jury what's discussed
5 on Page 110 that relates to the benefits of the '850
6 invention?

7 A. Bates 110 on this book, and especially this table on --
8 on the bottom -- bottom of the page, is showing that -- how
9 this solution -- what we called here as -- as packet bundling
10 is allowing to really minimize that -- how frequently the
11 phone has to be transmitting or -- or receiving, so
12 contributing to the -- to the battery saving achieved.

13 And -- and then also when we are transmitting less, then
14 we also create less interference for the network. So it's
15 not only about the battery saving.

16 Q. And I, as a user of a cell phone, how would my user
17 experience be impacted by the benefits of the '850 patent?

18 A. Again, the user will notice the practical improvement
19 that -- these applications that the user is using, then they
20 consume less battery power, and you have to -- in practice,
21 then you have to charge your device less often.

22 THE COURT: Counsel, approach the bench, please.
23 (Bench conference.)

24 THE COURT: All right. I want to get clear on this
25 witness.

1 First of all, when you ask him questions, like is
2 that significant, and how would my experience be different,
3 you are asking him for an opinion.

4 MR. BUNSOW: Okay.

5 THE COURT: And that -- that is not proper even
6 under 701. He's not an expert under 702. I'm going to
7 direct you not to call for opinions, speculation, anything
8 that would fall within an expert's purview.

9 He can talk about his book and what his book
10 covers. He can talk about whether the book covers the
11 technology that's in the patents.

12 MR. BUNSOW: Uh-huh.

13 THE COURT: If he has personal knowledge as a part
14 of the standard-setting body, he can talk about what they did
15 or didn't do that he observed. But he's not going to
16 speculate and he's not going to offer opinions.

17 And as I see it, he is a fact witness on a very
18 technical area that is extremely close to the line as what's
19 expert and what's not. And I think you've gone over the line
20 a couple of times.

21 So I want to make sure everybody understands where
22 we are. I mean, of course, all of what he does, you're going
23 to have a full opportunity to cross him on.

24 MR. MUELLER: Sure.

25 MR. BUNSOW: I understand.

1 THE COURT: I just want to make sure we're clear.

2 MR. MUELLER: Your Honor, if you instruct the jury
3 that he's not an expert witness and is not appearing as an
4 expert witness, it might clarify things.

5 MR. BUNSOW: I object to that, the adverse impact
6 that would have.

7 THE COURT: Yeah. I don't think that's called for.
8 But I do want to get the rules of the road straight with the
9 rest of his testimony.

10 MR. BUNSOW: Okay.

11 THE COURT: You misunderstand? Any questions?

12 MR. BUNSOW: No, no, but let me -- let me just say,
13 I have one more question. Are you proud of Nokia's -- of
14 your contributions while you've been at Nokia? That's my
15 last question.

16 THE COURT: He can express his personal pride.

17 MR. BUNSOW: Thank you.

18 THE COURT: Okay.

19 (Bench conference concluded.)

20 Q. (By Mr. Bunsow) Mr. Toskala, are you proud of the
21 contributions that you were a part of to the cellular
22 industry while you've been at Nokia?

23 A. Yes, very much. I'm very proud that -- that the
24 contributions that me, and especially the whole team that was
25 working together with me, was -- was able to make to this

1 development and improving this technology over the years that
2 I was participating and still was participating in this
3 standardization.

4 Q. Thank you for coming.

5 MR. BUNSOW: I have nothing further, Your Honor.

6 Pass the witness.

7 THE COURT: All right. Cross-examination by the
8 Defendant.

9 MR. MUELLER: May I proceed, Your Honor?

10 THE COURT: You may.

11 CROSS-EXAMINATION

12 BY MR. MUELLER:

13 Q. Good afternoon, Mr. Toskala.

14 A. Good afternoon.

15 Q. My name is Joe Mueller. I'm going to ask you a few
16 questions, okay?

17 A. Okay.

18 Q. Now, sir, you are not from Core Wireless?

19 A. I'm not.

20 Q. In fact, you've never been to Core Wireless, correct?

21 A. That's correct.

22 Q. And you've never heard of Core Wireless before this
23 case, correct?

24 A. That's correct.

25 Q. Now, you are from Nokia; is that right, sir?

1 A. That's correct.

2 Q. And you were deposed earlier in this case, weren't you?

3 A. That's correct.

4 Q. And with Mr. Bunsow, you testified a bit about your
5 book; is that right, sir?

6 A. That's correct.

7 Q. And you testified about different sections in the book,
8 correct?

9 A. That's correct.

10 Q. And you mentioned certain of the patent numbers in this
11 case; is that right, sir?

12 A. That's correct.

13 Q. But, in fact, those patent numbers do not appear
14 anywhere in your book, correct?

15 A. That's correct.

16 Q. Not the first edition, correct?

17 A. That's correct.

18 Q. Second edition?

19 A. That's correct.

20 Q. Third edition?

21 A. That's correct.

22 Q. Fourth edition?

23 A. That's correct.

24 Q. Fifth edition?

25 A. That's correct.

1 Q. These patents are nowhere in that book, correct?

2 A. That's correct.

3 Q. And, in fact, we had an opportunity to depose you
4 earlier in this case, about a year ago; is that right, sir?

5 A. That's correct.

6 Q. And you understand the process is that we get a chance
7 to ask you questions before trial so that we have fair notice
8 of what you might say.

9 Do you understand that, sir?

10 A. Yes, I do.

11 Q. And that's part of the fairness of the process, correct?

12 A. That's correct.

13 Q. And, in fact, we asked you at your deposition if you had
14 seen these patents, and you testified you'd barely read them
15 and only seen the covers of two, correct?

16 A. That's correct.

17 Q. And, in fact, you hadn't read them before your
18 deposition, correct?

19 A. That's correct.

20 Q. The first you'd heard of them was from Core Wireless's
21 lawyers, correct?

22 A. No, that's not correct.

23 Q. We'll get to that. But you hadn't read them before your
24 deposition, correct, sir?

25 A. That's correct.

1 Q. And yet today you testified about those same patents,
2 correct?

3 A. That's correct.

4 Q. Now, you mentioned you're being compensated for your
5 time. You're being paid 500 Euros an hour, correct?

6 A. That's correct.

7 Q. And at today's exchange rate, that's over \$500 an hour,
8 correct?

9 A. That's correct.

10 Q. To be a fact witness.

11 A. That's correct.

12 Q. You're not appearing here as an expert witness, right?

13 A. That's correct.

14 Q. There will be expert witnesses, correct?

15 A. To my understanding, yes.

16 MR. MUELLER: Withdrawn.

17 Q. (By Mr. Mueller) You're appearing as a fact witness,
18 correct, sir?

19 A. That's correct.

20 Q. To tell the truth?

21 A. That's correct.

22 Q. And to tell the truth, you're being paid over \$500 an
23 hour, right?

24 A. That's correct.

25 Q. And you've testified about patents that you hadn't even

1 read a year ago, correct?

2 A. That's correct.

3 Q. Now, you understand Nokia, your company, is attempting
4 to get money through this case?

5 A. That's correct.

6 Q. Part of an arrangement with Microsoft?

7 A. Can you -- can you clarify?

8 Q. Nokia is in an arrangement with Microsoft as part of
9 this case, correct?

10 A. That's my understanding, yes.

11 Q. They stand behind Core Wireless, correct?

12 A. That's my understanding, yes.

13 Q. Conversant as well, correct?

14 A. I'm not aware of exactly all the details of the
15 agreement, so --

16 Q. Do you -- I'm sorry, sir. Are you finished, sir?

17 A. Yes.

18 Q. Do you know what Conversant is?

19 A. I have a rough understanding, yes, sir.

20 Q. And you understand they have a stake in the case as
21 well?

22 A. Yes, I do.

23 Q. Now, sir, you were asked about the opening statement.
24 Were you here for that?

25 A. Yes, I was.

1 Q. And did you see when Mr. Bunsow referred to a slide that
2 had Nokia and two hands shaking? Were you here for that?

3 A. Yes.

4 MR. MUELLER: Could we see that slide, please?

5 Q. (By Mr. Mueller) And, sir, do you see the slide is
6 titled: What should have happened?

7 A. Yes, I see that.

8 Q. And it shows Nokia and Apple shaking hands?

9 A. Yes.

10 Q. And it suggests that what should have happened is they
11 should have reached an agreement, right?

12 A. That's what I understood to be discussed.

13 Q. Well, in fact, sir, they did reach an agreement. Apple
14 and Nokia entered into a cross-license agreement; isn't that
15 true?

16 A. That's my understanding, yes.

17 Q. So what should have happened is what did happen,
18 correct?

19 A. Can you clarify?

20 Q. Sure.

21 The slide suggests that what should have happened is
22 Nokia and Apple reaching an agreement. They did reach an
23 agreement, right?

24 A. That's my understanding, although I don't know the
25 details of that agreement.

1 Q. Now, as part of that agreement, you understand that
2 Apple paid some money to Nokia, correct?

3 A. That's my understanding, yes.

4 Q. And now Nokia is seeking more, right?

5 A. In -- in -- in some sense, yes.

6 Q. Now, during the negotiations of this agreement, Nokia
7 never mentioned Core Wireless, correct?

8 A. I have no information of those negotiations.

9 MR. BUNSOW: Objection. No foundation, Your Honor.

10 THE COURT: I'm sorry.

11 MR. BUNSOW: No found --

12 THE COURT: What's your objection?

13 MR. BUNSOW: No foundation for this witness.

14 THE COURT: I'll sustain that objection.

15 Q. (By Mr. Mueller) Do you know anything at all about the
16 negotiations between Apple and Nokia?

17 A. No. I was not directly involved in those negotiations.

18 Q. And so to be clear, you're not here to defend Nokia's
19 conduct, correct?

20 A. That's correct.

21 Q. Now, you've worked at Nokia and Nokia Siemens Networks
22 your entire career, correct?

23 A. That is correct.

24 Q. You've worked there as an engineer?

25 A. Engineer and -- and -- and manager, yes.

1 Q. On cellular technologies?

2 A. That's correct.

3 Q. With other engineers?

4 A. That's correct.

5 Q. You yourself are not an inventor on any of the five
6 patents in this case, correct?

7 A. That's correct.

8 Q. Do you know Jukka Vialen, the named inventor on the '143
9 patent?

10 A. Yes, I do.

11 Q. And he's not coming to Tyler to testify at trial, right?

12 A. That's my understanding, yes.

13 Q. Do you know Kari Pehkonen, the named inventor on the
14 '321 patent?

15 A. Yes, I know him very well.

16 Q. And he's not coming either, correct?

17 A. That's my understanding, yes.

18 Q. Do you know Harri Lilja, another named inventor from the
19 '321 patent?

20 A. Yes, I do.

21 Q. And he's not coming either, correct?

22 A. That's my understanding.

23 Q. Do you know Guillaume Sebire, a named inventor from the
24 '022 and '664 patent?

25 A. Yes, I do.

1 Q. He's not coming either?

2 A. That's my understanding.

3 Q. Do you know Yuping Zhao, another inventor from the '143
4 or '664 patent?

5 A. No, I don't know him or her.

6 Q. You don't know Mr. Zhao?

7 A. No.

8 Q. Do you know Eero Nikula, N-I-K-U-L-A, another named
9 inventor from the '022 patent and '664 patents?

10 A. Yes, I know him.

11 Q. He's not coming to the trial either, correct?

12 A. That's my understanding.

13 Q. Do you know Benoist Sebire, a named inventor on the '850
14 patent?

15 A. Yes, I do.

16 Q. And he's not coming either, correct?

17 A. That's my understanding.

18 Q. Do you know Jukka Nauha, N-A-U-H-A, another named
19 inventor on the '850 patent?

20 A. I know Jukka Nauha.

21 Q. I apologize. I mispronounced it.

22 He's not coming to trial either, is he, sir?

23 A. That's my understanding.

24 Q. Do you know Anna-Mari Vimpari, another named inventor on
25 the '850 patent?

1 A. Yes, I know her as well.

2 Q. And, sir, she's not coming to trial either, correct?

3 A. That's my understanding.

4 Q. Do you know Esa Malkamaki, another named inventor on the
5 '850 patent?

6 A. Yes, I know him, sir.

7 Q. And he's not coming to trial either, correct?

8 A. That's my understanding.

9 Q. Do you know Matti Jokimies, J-O-K-I-M-I-E-S?

10 A. Yes, I know him.

11 Q. And he's not coming to trial either, correct?

12 A. That's my understanding.

13 Q. Now, sir, I've read every named inventor on the five
14 patents in this case and not a single one is coming to trial,
15 correct?

16 A. That's my understanding.

17 Q. In fact, the only Nokia employee who's coming to this
18 trial, sir, are you, right?

19 A. Yes.

20 Q. And you are not a named inventor on any of the patents,
21 correct?

22 A. That's correct.

23 Q. You're not appearing as an expert witness in this case,
24 correct?

25 A. That's correct.

1 Q. And you hadn't read any of the patents before we deposed
2 you earlier in the case, correct?

3 A. That's correct.

4 Q. Sir, you mentioned during your direct testimony that
5 you've had involvement in standard-setting organizations; is
6 that right?

7 A. That's correct.

8 Q. Including the European Telecommunications Standards
9 Institute?

10 A. Yes.

11 Q. And that's part of the Third Generation Partnership
12 Project, or 3GPP?

13 A. Yes.

14 Q. Now, at ETSI, many different companies collaborate
15 together, correct?

16 A. Yes.

17 Q. And today Apple is one of those companies, correct?

18 A. Yes.

19 Q. And many others as well, right?

20 A. Yes.

21 Q. Motorola?

22 A. Yes.

23 Q. Many, many, many other companies.

24 A. Yes.

25 Q. And they work together, right?

1 A. Yes.

2 Q. They get in rooms, and engineers make proposals, right?

3 A. Yes.

4 Q. And one company will say, I have an idea for something
5 that might be good for the standard, correct?

6 A. Yes.

7 Q. Another company says, I have an idea as well, correct?

8 A. Yes.

9 Q. And then the discussion unfolds. The engineers can
10 discuss their proposals, right?

11 A. Yes.

12 Q. And they have an open discussion, correct?

13 A. Yes.

14 Q. And they circulate documents among each other, correct?

15 A. Yes.

16 Q. Sometimes those are shared at the meetings themselves?

17 A. Yes.

18 Q. Sometimes they're emailed among each other?

19 A. Sometimes.

20 Q. And those are called reflector lists?

21 A. Yes.

22 Q. And there's email chains with various engineers from
23 various companies exchanging ideas, correct?

24 A. Sometimes, yes.

25 Q. And they're sharing those ideas in an open way, correct?

1 A. Yes.

2 Q. And there's no restrictions on the proposals. They
3 give it -- they give them to each other to review without
4 confidentiality, correct?

5 MR. BUNSOW: Objection, compound.

6 MR. MUELLER: I'll rephrase, Your Honor.

7 THE COURT: All right.

8 Q. (By Mr. Mueller) There's no restrictions on those
9 proposals as they're shared, correct?

10 A. Can -- can you clarify what you mean restriction?

11 Q. Sure.

12 The engineers make proposals to each other, correct?

13 A. That's right.

14 Q. They're free to read those proposals, right?

15 A. Yes.

16 Q. Share them with their colleagues to discuss them,
17 correct?

18 A. Yes.

19 Q. It's part of an open process, right?

20 A. Yes.

21 Q. Anyone can go to the meetings to participate, correct?

22 A. Any member of the organization, yes.

23 Q. Any member of ETSI can go to those meetings, correct?

24 A. Yes.

25 Q. And there's many, many, many members, right?

1 A. Yes.

2 Q. And that's the process. If we look at the documents,
3 we'll see many documents. Part of this open process,
4 correct?

5 A. Yes.

6 Q. No restrictions, right?

7 A. Yes.

8 Q. Now, the product of that process is the standard itself,
9 correct?

10 A. Yes.

11 Q. And when there's a proposal that's made, votes will be
12 taken, along with other proposals, correct?

13 A. Sorry. Can you -- can you clarify?

14 Q. Sure. Let me -- let me rephrase.

15 When one company makes a proposal, others might also
16 make one, right?

17 A. Yes.

18 Q. And there could be a vote taken, correct?

19 A. Typically -- typical, voting is not used in practice.

20 Q. There's a choice made, let's put it that way. A choice
21 is made as to what to do, correct?

22 A. Yes.

23 Q. And some proposals might be accepted, correct?

24 A. Yes.

25 Q. Some rejected, correct?

1 A. Yes.

2 Q. The accepted proposals become part of the standard,
3 correct?

4 A. Yes.

5 Q. The rejected proposals do not, correct?

6 A. Yes.

7 Q. And this over time results in a very large set of
8 standards documents, right?

9 A. Yes.

10 MR. MUELLER: Your Honor, may I take a box from the
11 stack over here?

12 THE COURT: You may.

13 Q. (By Mr. Mueller) Sir, I'm going to represent to you
14 that we printed out as much of the UMTS standard as we could.

15 Each one of these boxes is stacked with paper. Your
16 counsel is free to look at it if -- if he'd like. There's 18
17 boxes here. The standard is an immense document, right?

18 A. It's a big document, yes.

19 Q. It's a big piece of work that reflects contributions
20 from many different companies, right?

21 A. That's correct.

22 MR. MUELLER: Your Honor, may I return the box?

23 THE COURT: You may.

24 Q. (By Mr. Mueller) Not just Nokia, correct?

25 A. Yes, that's correct.

1 Q. Many, many companies have contributed to this?

2 A. Yes.

3 Q. Now, do you understand that many companies claim to have
4 a patent on some page or another in this document?

5 A. Can you clarify which document?

6 Q. Sure. Do you understand that in the cellular industry,
7 many different companies claim that they have a patent that
8 covers one page or another within this large set?

9 A. Yes.

10 Q. And, in fact, there's thousands of patents that are
11 claimed to be essential to this large UMTS standard, correct?

12 A. I have no information of the exact number of -- of the
13 patents in -- in question.

14 Q. But you know the number much patents is thousands?

15 A. I -- I know the number is -- is large, yes.

16 Q. Very large number, right?

17 A. I -- I don't -- I don't have knowledge of the exact
18 number of how many patents have been declared, basically.

19 Q. And when you use the word "declared," you're referring
20 to companies saying to ETSI, I'm declaring my patent,
21 correct?

22 A. That's correct.

23 Q. And they say it might be essential, right?

24 A. That's correct.

25 Q. Now, there's no one at ETSI that actually checks that,

1 correct?

2 A. That's correct.

3 Q. There's no one at ETSI that reviews the declarations to
4 decide if the patents are actually essential, correct?

5 A. That's my understanding, yes.

6 Q. There's no gatekeeper?

7 A. That's correct.

8 Q. So when a company says it has declared essential
9 patents, that's just that company saying so, right?

10 A. That's correct.

11 Q. It doesn't mean the patent is actually essential, right?

12 A. That's correct.

13 Q. To know if the patent is actually essential, you need to
14 compare the patent claim-by-claim, limitation-by-limitation,
15 right?

16 A. That's correct.

17 Q. You'd have to do the sort of expert testimony that we'll
18 see over the course of this case, right?

19 A. That's correct.

20 Q. And you haven't done that today, right, sir?

21 A. That's correct.

22 Q. And certainly many of the patents that are declared as
23 essential are not, in fact, truly essential, right?

24 A. That's correct. Again, not charged many or the
25 relationship, but basically, yes.

1 Q. And so if we see a big list of patents that says
2 declared essential at the top, it doesn't really tell us
3 which of those patents are truly essential?

4 A. That's correct.

5 Q. Core Wireless has never gone to ETSI, correct, as far as
6 you know?

7 A. That's correct.

8 Q. Never gone to a meeting, right?

9 A. As far as I'm aware of, yes.

10 Q. Never made a contribution to any of the standards,
11 correct?

12 A. Correct.

13 Q. Never raised its hand and said I have an idea, correct?

14 A. Correct.

15 Q. That never happened?

16 A. As -- as far as I can tell, yes.

17 Q. Now, if we look at an actual phone, the part of the
18 phone that does the digital processing for cellular
19 functionality is called the baseband chip, correct?

20 A. That's correct.

21 Q. And the baseband chip is a component that you can buy
22 from a chip supplier, right?

23 A. That's correct.

24 Q. And you know from having worked at Nokia how baseband
25 chips --

1 MR. MUELLER: Withdrawn.

2 Q. (By Mr. Mueller) Have you worked with baseband chips
3 over the years at Nokia?

4 A. To certain extent, yes.

5 Q. And you know that on a per chip basis, they cost very
6 little, correct?

7 A. That is a relative -- relative very, very little --

8 Q. Sure. Well, you can buy a baseband chip that will
9 perform the digital processing for UMTS for \$10 or less,
10 correct?

11 A. That's correct.

12 Q. Now, by the way, UMTS is not the latest generation
13 standard, right?

14 A. That's correct.

15 Q. There's a fourth generation standard called LTE,
16 correct?

17 A. That's correct.

18 Q. And LTE is the most recent standard on the market?

19 A. That's correct.

20 Q. UMTS is an older standard?

21 A. That's correct.

22 Q. And then there's some parts within UMTS that are even
23 older. There's GPRS and EDGE, correct?

24 A. No, it's not part of the UMTS -- I mean, that's part
25 GSM.

1 Q. Fair enough. GSM is an earlier standard?

2 A. That's correct.

3 Q. And all of these standards are older technologies today?

4 A. That's correct.

5 Q. So you understand that what Core Wireless is accusing
6 today is part of the older standards, correct?

7 A. That's correct.

8 Q. Are you familiar with the rules of ETSI?

9 A. Can you clarify?

10 Q. Absolutely. You're familiar with something called the
11 intellectual right -- property rights policy?

12 A. Yes, I am.

13 Q. And that's a set of rules that binds the members of
14 ETSI, correct?

15 A. That's correct.

16 Q. And those include rules that require members to license
17 those patents that are essential to the standard on fair and
18 reasonable and non-discriminatory terms, right?

19 A. To my understanding, yes.

20 Q. That's called the FRAND requirement?

21 A. That's correct.

22 Q. Because it stands for fair and reasonable and
23 non-discriminatory?

24 A. Yes.

25 Q. And that's binding on the members, correct?

1 A. Yes.

2 Q. They're signing a contract that obligates them to comply
3 with FRAND, correct?

4 A. Yes.

5 Q. That's certainly true for Nokia, right?

6 A. Yes.

7 Q. It agreed to be bound as a contractual matter by FRAND,
8 correct?

9 A. Can -- can you clarify?

10 Q. Sure. Nokia agreed to be bound -- contractually bound
11 to be fair, reasonable, and non-discriminatory, correct?

12 A. To my understanding, yes.

13 Q. And those obligations carry along even if sells the
14 patents to somebody else like Core Wireless, correct?

15 A. I'm not able to comment on -- on that -- that question.

16 Q. Fair enough.

17 Sir, do you believe it's fair and reasonable to sue
18 someone without the courtesy of a phone call?

19 MR. BUNSOW: Objection --

20 A. I'm not able to comment --

21 THE COURT: Just a minute, just a minute.

22 MR. BUNSOW: 402, 403, and foundation.

23 THE COURT: Sustained.

24 Q. (By Mr. Mueller) The FRAND obligation is incumbent upon
25 the patentholder, correct?

1 A. To my understanding, yes.

2 Q. So it binds the person who actually has the patent,
3 correct?

4 MR. BUNSOW: Same objection, Your Honor, no
5 foundation.

6 A. Can you -- can you clarify?

7 THE COURT: Just -- just a minute.

8 Mr. Toskala, when an objection is raised, you need
9 to stop talking and let me rule on the objection, okay?

10 Restate your objection, Counsel.

11 MR. BUNSOW: Objection, foundation, 402, 403.

12 THE COURT: Response?

13 MR. MUELLER: Sure. I'm asking him about the rules
14 that he said he knows and understands. I'm asking now about
15 the nature of the FRAND requirement.

16 THE COURT: Restate your question, Mr. Mueller.

17 MR. MUELLER: Thank you, Your Honor.

18 Q. (By Mr. Mueller) Mr. Toskala, the FRAND requirement
19 does not require other companies to pay for patents just
20 because they've been declared essential, correct?

21 MR. BUNSOW: Same objection, Your Honor,
22 foundation.

23 A. I'm not --

24 THE COURT: Wait a minute.

25 It seems to me that there's a lack of foundation.

1 I'll sustain the objection.

2 MR. MUELLER: Thank you, Your Honor.

3 THE COURT: You know, we've clarified this is not
4 an expert witness, and you're asking him to give opinions.
5 So we need to move along.

6 Q. (By Mr. Mueller) Mr. Toskala, you've been at Nokia for
7 about 20 years, correct?

8 A. That's correct.

9 Q. And at one time, Nokia sold more cell phones than anyone
10 in the industry, correct?

11 A. That's correct.

12 Q. And I -- Apple released the iPhone in 2007, right, sir?

13 A. That's correct.

14 Q. In the years that followed, Nokia's sales began to
15 suffer, right?

16 A. That's correct.

17 Q. And in late 2010, a gentleman named Steven Elop became
18 the chief executive officer of Nokia. He came from
19 Microsoft, right?

20 A. That's correct.

21 Q. He was the head of the company?

22 A. That's correct.

23 Q. And spoke for the company?

24 A. That's correct.

25 Q. Now, in early 2011, at that point in time, Nokia had

1 missed big trends from a technological perspective, correct?

2 MR. BUNSOW: Excuse me, Your Honor. May we
3 approach on this line of questioning?

4 THE COURT: You may.

5 (Bench conference.)

6 THE COURT: You need to speak into the mic.

7 MR. BUNSOW: Thank you, Your Honor.

8 This was covered in the pre-trial rulings by Judge
9 Love. This is the so-called burning platform memo that
10 they've been trying to get into, and that was rejected by
11 Judge Love. And certainly we haven't opened the door to
12 this. We didn't ask anything about Mr. Elop, so...

13 MR. MUELLER: Three points, Your Honor -- I'm
14 sorry, three points. The first is Judge Love indicated that
15 it would depend on how the evidence came in in terms of the
16 relevance. This particular document is a document by the
17 CEO, Mr. Elop, commenting on reasons why --

18 THE COURT: You need to speak up. I can't hear
19 you.

20 MR. MUELLER: I'm sorry. Commenting on reasons why
21 Nokia's sales suffered. I can show it to Your Honor. I'm
22 not going to use it until we discussed it with Your Honor.

23 But we believe (a) through opening statement
24 the door was opened with respect to how Nokia's marketplace
25 fortunes unfolded; (b) direct examination with Mr. Toskala

1 explicitly characterized Nokia as a cellular pioneer.

2 There was a slide shown in opening that showed
3 Apple standing on the shoulders of Nokia. This document by
4 the CEO explains the reasons for Nokia's sales declining and
5 also discusses Apple directly. He was speaking on behalf of
6 the company, as Mr. Toskala just described. We think it's
7 fair cross-examination.

8 Now, right now I haven't even asked him about it,
9 but I wanted to see if he contradicted it. And if he did, I
10 intend to use it, with Your Honor's permission.

11 THE COURT: I don't think he's contradicted
12 anything you've asked him.

13 MR. MUELLER: Not yet. Not yet, yeah, I agree.

14 THE COURT: This is a pre-admitted exhibit; is that
15 correct?

16 MR. MUELLER: No, it's not.

17 MR. BUNSOW: It's not.

18 THE COURT: How is this witness going to sponsor
19 what's in effect hearsay from somebody else?

20 MR. MUELLER: So if he contradicts the description
21 of the marketplace trends, I would show him Mr. Elop's memo
22 to the Nokia employees. This went to every employee in the
23 entire company, describing the real reasons behind Nokia's
24 decline in sales. That would be the idea. And we think it's
25 directly relevant to the "standing on the shoulders" theme

1 that they've attempted to portray.

2 THE COURT: I'm not asking about relevance. I'm
3 talking about hearsay. This is a statement by a third party
4 who's not here, and this witness didn't make this statement.

5 MR. MUELLER: I'd say at a minimum, Your Honor,
6 it's relevant to refreshing his recollection as to what the
7 trends were at the time. And even if I don't seek to admit
8 it, it'd be properly used for refreshing his recollection.

9 THE COURT: Response?

10 MR. BUNSOW: This was a big issue in pre-trial
11 before Judge Love. And we argued this extensively, and these
12 issues were explicitly discussed. They could have taken
13 Mr. Elop's deposition. They could have asked him about this.

14 They didn't do it. They want to try to get it in
15 through some backdoor way. And -- and you can see, these are
16 statements of personal opinion. That's all they are. And
17 they clearly are hearsay.

18 They're -- Apple's going to try to use them to
19 prove the truth of -- of the statements and the
20 characterizations that are made there. This is a man who is
21 very upset and was basically castigating -- I think is a fair
22 word -- his -- his company and his employees to do better.
23 And I -- I think it's highly prejudicial under 403, and it
24 has no probative value whatsoever.

25 MR. MUELLER: It does, Your Honor, for the themes

1 we're attempting to present, and Judge Love --

2 THE COURT: Let's do this. Let's proceed. You
3 continue with your questioning. If you think he contradicts
4 and you reach a point where you want -- you believe it's
5 proper to go into this, then re-approach and I'll -- I'll
6 consider it between now and then, okay?

7 MR. MUELLER: Thank you, Your Honor.

8 MR. BUNSOW: All right.

9 (Bench conference concluded.)

10 THE COURT: All right. Let's proceed.

11 Q. (By Mr. Mueller) Mr. Toskala, do you have in mind that
12 early 2011 time period?

13 A. Yes.

14 Q. And at that time, from a technological perspective,
15 Nokia missed big trends, correct?

16 A. Can you clarify, what trends you're talking about?

17 Q. Sure. Missed big trends in the marketplace in terms of
18 new types of devices, correct?

19 A. Yes.

20 Q. And, in fact, Nokia fell behind, correct?

21 A. Can I clarify, fell behind?

22 Q. Fell behind other competitors who had introduced new
23 devices, correct?

24 A. Yes.

25 Q. Nokia lost market share, correct?

1 A. Yes.

2 Q. And at that point in time, Nokia lacked accountability
3 and leadership to align and direct Nokia through those times?

4 A. I'm not able to answer that question.

5 Q. Now, you agree that Apple had disrupted the market by
6 redefining the smartphone, correct?

7 A. I'm not able to answer.

8 Q. You're not able to answer that?

9 A. I'm not able to characterize the market.

10 Q. But you don't dispute Apple's iPhone was a big change,
11 correct?

12 A. Yes, I don't dispute that.

13 Q. It introduced new technologies to the market?

14 A. No.

15 Q. It introduced new ways of bringing those technologies
16 together into a particular user experience; you'd agree with
17 that?

18 A. Yes.

19 Q. And it was very popular with consumers, right?

20 A. Yes.

21 Q. And by 2011, even though the first iPhone shipped in
22 2007, Nokia still didn't have a product that was close to
23 their experience?

24 A. I'm not able to comment on that.

25 Q. You don't dispute it, though?

1 MR. BUNSOW: Objection, asked and answered.

2 THE COURT: He said he doesn't know. That's --
3 that's an adequate response.

4 Q. (By Mr. Mueller) Sir, again, you're being paid to
5 appear; but you are not offering any opinion in this case on
6 the question of infringement, correct?

7 A. That is correct.

8 Q. Nor invalidity, correct?

9 A. That is correct.

10 Q. You have not compared any of the patents in this case to
11 the Apple products, correct?

12 A. That is correct.

13 Q. Thank you, sir.

14 MR. MUELLER: No further questions.

15 THE COURT: Redirect?

16 MR. BUNSOW: Thank you, Your Honor.

17 REDIRECT EXAMINATION

18 BY MR. BUNSOW:

19 Q. You were asked some questions about declaring patents
20 essential. Are you familiar with Nokia's practice in
21 declaring patents to ETSI and other standards bodies?

22 A. I'm familiar with the practice of declaring the patents,
23 especially when it comes to my own patents.

24 Q. And based on your personal experience, what's a typical
25 thing -- what are the typical things that Nokia does before

1 declaring patents standard essential?

2 A. In -- in case of my own patents, we were always creating
3 this kind of what we call as a claim chart, so comparing very
4 carefully that the patent has all the elements than in -- in
5 the standards before proceeding with further considerations
6 on any declarations.

7 Q. Prior to 2007, did you see anyone from Apple raise their
8 hand in any ETSI meeting and claim that they had some
9 significant technology to contribute?

10 A. Not at any of the meetings that I was attending.

11 Q. Did you see Nokia engineers do that?

12 A. Yes. At several locations, I guess in almost every
13 meeting that I attended.

14 Q. Did you see some of the inventors that Mr. Mueller read
15 the names of raise their hands and offer contributions in
16 those meetings?

17 A. Yes. I -- I -- I saw also some of the
18 mentioned inventors attending those meetings and -- and raise
19 their hand and propose solutions for the standards.

20 Q. You were asked about the baseband chips. In order to
21 implement the capability of the '850 patent that you describe
22 in your book, is it only the baseband chip that does that?

23 A. The functionality as such is -- is -- is located in --
24 in the baseband chip, basically, that this then obtained from
25 some chip vendor so the baseband chip and the software in --

1 in the baseband chip is -- is responsible for -- for that
2 functionality.

3 Q. And how are the transmissions made, the packet
4 transmissions that are described?

5 A. So can you clarify --

6 Q. What components are used in the phone to make those
7 transmissions?

8 A. Well, basically, the baseband chip is -- is -- is
9 getting the data from -- from this application processor that
10 is providing the data, and then the baseband chip is -- is
11 processing the packets and then providing them onwards to the
12 power amplifier that then provides further the signal to the
13 antenna in -- in the cellular phone.

14 Q. So we have the baseband chip, the power amplifier, and
15 the antenna; is that correct?

16 A. Yes, that's correct.

17 Q. And you also need a battery?

18 A. We also need the battery, of course, to power the -- the
19 baseband chip and the antenna, as -- as well as other
20 functionality in the cellular phone.

21 Q. Okay. Now, is the power amplifier part of the baseband
22 chip?

23 A. Based on my experience, usually the power amplifier
24 is -- is a separate component as such.

25 Q. And the antenna, is the antenna part of the baseband

1 chip?

2 A. Antenna is also, to my understanding, a separate
3 component of the cellular -- of the cellular phone.

4 Q. And the battery, is the battery part of the baseband
5 chip?

6 A. No. Battery is definitely a separate component in the
7 cellular phone.

8 Q. And what about the enclosure that holds all of these
9 pieces together, is that part of the baseband chip?

10 A. No, that is not part of the baseband chip.

11 Q. And when voice calls are being made, do you have to use
12 a microphone?

13 A. Yes, the mo -- the phone has -- has a microphone for --
14 for getting -- getting the voice signaling, obviously.

15 Q. Okay. And when -- do you recall when we talked about
16 the '850 patent that one of the benefits was using it during
17 voice calls?

18 A. Yes, I do remember that.

19 Q. Is a microphone required for voice calls?

20 A. Yes. Microphone is required for the voice calls.

21 Q. Now, you also talked about the description in your book
22 that matches the '321 patent, and which -- what component
23 does that technology seek to control in order to save power?

24 A. Well, this section in -- in this '321 is really how is
25 the basically processing done inside the baseband chip. So

1 before the signal is -- is provided for the power amplifier
2 so that the signal is as -- as amplifier friendly as possible
3 so it can use efficient power amplifier.

4 Q. And what component -- in which component is the power
5 actually saved? Is the power saved in the baseband chip, or
6 is it saved in the power amplifier?

7 A. Well, when the baseband chip is creating the signal away
8 from that, it's kind of easy for the amplifier. Then you are
9 able to use the more power efficient amplifier that then
10 consumes less power.

11 Q. And is the amplifier part of the baseband chip?

12 A. No, the amplifier is not part of the baseband chip.

13 Q. You were asked about your hourly rate. Is -- is that a
14 special rate for this case, or is that your normal hour --
15 hourly rate?

16 A. No, that's the normal hourly rate that I was charging,
17 for example, in -- in my -- for example, in my deposition two
18 weeks ago in -- in Florida.

19 MR. BUNSOW: I don't have anything further. Pass
20 the witness, Your Honor.

21 THE COURT: Additional cross?

22 MR. MUELLER: Briefly, Your Honor.

23 THE COURT: All right.

24 RECROSS-EXAMINATION

25 BY MR. MUELLER:

1 Q. Mr. Toskala, when you were speaking with Mr. Bunsow just
2 now, you mentioned claim charts; is that right?

3 A. Yes.

4 Q. And those are charts that might have claim language on
5 one side and a standard specification, for example, on the
6 other, right?

7 A. That's correct.

8 Q. Or could have claim language on one side and an actual
9 product on the other, correct?

10 A. No.

11 Q. In your experience, it's always been standard
12 specifications on the right?

13 A. In my experience, it was a standard on --

14 Q. Fair enough. And that's one way of taking claims in a
15 patent, one-by-one, piece-by-piece, and comparing them to a
16 standard, correct?

17 A. That's correct.

18 Q. Now, you didn't present any claim chart to the jury
19 today, correct?

20 A. That's correct.

21 Q. And, again, those patents -- the five patents in this
22 case, are in none -- none of your books, correct?

23 A. Can you clarify?

24 Q. Sure. The patents -- five patents in this case are not
25 in your books, as we discussed earlier, correct?

1 MR. BUNSOW: Objection, vague, Your Honor.

2 THE COURT: Overruled.

3 A. So the patents themselves are not in the book.

4 Q. (By Mr. Mueller) Last question, sir. You did not
5 present any proposal to ETSI today that matches any of the
6 five patents in this case, correct?

7 A. Can you clarify?

8 Q. Sure. You did not provide the jury with any evidence of
9 any proposal being made to ETSI that matches the five patents
10 in this case, correct?

11 A. That's correct.

12 MR. MUELLER: No further questions. Thank you,
13 sir.

14 THE COURT: Redirect?

15 MR. BUNSOW: Brief follow-up, Your Honor.

16 REDIRECT EXAMINATION

17 BY MR. BUNSOW:

18 Q. Did you -- are you aware of Nokia presenting any
19 proposals to ETSI that match any of the patents in this case?

20 A. Yes, I am.

21 Q. Which ones?

22 A. I'm aware -- especially these proposals that were
23 related to this -- first of all, '321 as -- as those were
24 handled in the meetings that I actually participated in -- in
25 1997, together with the Dr. Kari Pehkonen.

1 And I'm also aware of the proposals made related to this
2 '850, as I was then heading the team that was in --
3 responsible of -- of making the proposals, including being
4 the -- for example, one of the named inventors, Benoist
5 Sebire, at the time when those were discussed in
6 standardization around year -- years 2006, 2007 time frame.

7 And also related to this '143 patent, I was working very
8 closely with -- with Jukka Vialen at the time, 1999, and
9 knowing him very well, as he was also contributing to --
10 to -- to my book, so I -- I was aware that he was working
11 with that topic in the standards at the time.

12 Q. Was the '321 proposal adopted into the standard?

13 A. Yes, it was adopted to the standard in -- in the very
14 early phase of -- of the process of -- of when -- when we're
15 making the technical selection for the generation standards.

16 Q. And why was it adopted?

17 A. Because in this meeting when it was -- was presented,
18 basically, it was considered by the other parties
19 participating in the meeting as a -- as -- as a good idea
20 of -- of solving the problem.

21 Q. Was the '850 adopted into the standard, the '850 patent?

22 MR. MUELLER: Your Honor, I object.

23 THE COURT: State your objection.

24 MR. MUELLER: Expert testimony of exactly the type
25 that we were told Mr. Toskala would not provide.

1 THE COURT: Response?

2 MR. BUNSOW: He said that he was familiar --
3 personally familiar with this testimony. He was asked about
4 it on recross.

5 THE COURT: I'll -- I'll overrule the objection.

6 He's testifying from his personal knowledge.

7 Q. (By Mr. Bunsow) Was the technology of the '850 patent
8 incorporated into the standard?

9 A. Yes. It was -- my team was -- was successfully able to
10 drive the technology in this '850, and that was incorporated
11 into the standard.

12 Q. And why was the '850 technology -- '850 patented
13 technology adopted into the standard?

14 A. Because that was solving the problem or addressing the
15 problem that was identified to improve the fact that it was
16 already energy con -- consumption as part of this work under
17 this continuous packet connectivity work in -- in 3GPP during
18 Release 7.

19 Q. Was the '143 patent technology adopted into the
20 standard?

21 A. Yes, it was adopted in the standard, as well.

22 Q. Why was the technology of the '143 patent adopted into
23 the standard?

24 A. Because there was a desire -- there was a need to have a
25 solution that how we are able to efficiently set -- decide

1 what kind of channel should be located for a device in
2 different situations.

3 MR. BUNSOW: Pass the witness, Your Honor.

4 THE COURT: Further cross-examination?

5 RECROSS-EXAMINATION

6 BY MR. MUELLER:

7 Q. Mr. Toskala, we just heard for the first time on your
8 third round of direct --

9 MR. BUNSOW: Objection to the preamble, Your Honor.

10 Q. (By Mr. Mueller) -- about these proposals being made --

11 THE COURT: Wait -- just wait a minute. What's
12 your -- what's your point, Mr. Bunsow?

13 MR. MUELLER: I'm sorry.

14 MR. BUNSOW: My objection is he's not asking the
15 question, Your Honor. It's a preamble. He's making a
16 statement.

17 THE COURT: All right. Well, we'll have no sidebar
18 comments. Limit your communications with the witnesses to
19 questions.

20 Q. (By Mr. Mueller) Mr. Toskala, you did not provide any
21 written proposal to this jury for any of the patents in this
22 case, correct?

23 A. That's correct.

24 Q. And, in fact, sir, you hadn't read those patents as of
25 your deposition a year ago, correct?

1 MR. BUNSOW: Objection, asked and answered, a third
2 time.

3 A. That's -- that's correct.

4 THE COURT: I'll overrule it. But we have covered
5 this ground.

6 A. That's correct.

7 MR. MUELLER: Nothing further. Thank you.

8 THE COURT: Additional direct?

9 MR. BUNSOW: No, Your Honor, we're done. Thank
10 you.

11 THE COURT: All right. You may step down,
12 Mr. Toskala.

13 Mr. Bunsow, does this witness wish to be excused?

14 MR. BUNSOW: Yes, Your Honor, he does.

15 THE COURT: Is there objection from the Defendant?

16 MR. MUELLER: No, Your Honor.

17 THE COURT: All right. Mr. Toskala, you are -- not
18 only may you not -- not only may you step down, you are
19 excused which means you're free to stay, you're also free to
20 leave. Thank you.

21 All right. Before Plaintiff calls their next
22 witness, we will take a short recess, approximately 10
23 minutes.

24 Ladies and Gentlemen of the Jury: Please leave
25 your notebooks in your chairs. I remind you not to discuss

1 the case among yourselves, and we'll be back in here shortly.

2 You're excused for recess at this time.

3 COURT SECURITY OFFICER: All rise for the jury.

4 (Jury out.)

5 THE COURT: All right. We stand in recess for the
6 next 10 minutes.

7 (Recess.)

8 (Jury out.)

9 COURT SECURITY OFFICER: All rise.

10 THE COURT: Let's bring in the jury, please.

11 COURT SECURITY OFFICER: All rise for the jury.

12 (Jury in.)

13 THE COURT: Please be seated.

14 All right. Plaintiff, call your next witness.

15 MS. DE MORY: Plaintiff calls Harri Lilja by
16 deposition.

17 THE COURT: All right. Proceed with the
18 deposition.

19 (Video clip playing.)

20 QUESTION: Good morning. Would you give us your
21 name?

22 ANSWER: My name is Harri Lilja.

23 QUESTION: Are you the inventor of U.S. Patent
24 6,266,321?

25 ANSWER: Yes.

1 QUESTION: Okay. So I'm going to ask you some
2 questions about the '321 patent; but before I do that, I
3 would like to learn a little bit about your background before
4 we go through all that.

5 So, first of all, where do you live?

6 ANSWER: I live in Saratoga --

7 QUESTION: Okay. Are you --

8 ANSWER: -- Bay Area.

9 QUESTION: How long have you lived in -- in
10 California?

11 ANSWER: Almost three years.

12 QUESTION: And how long have you lived in the
13 United States?

14 ANSWER: Almost three years.

15 QUESTION: Same time.

16 Where -- where did you come from originally?

17 ANSWER: From Finland.

18 QUESTION: And -- and before you came to the United
19 States, did you live anywhere other than Finland?

20 ANSWER: No, except that was '85, as an exchange
21 student. Actually in California also.

22 QUESTION: Oh, okay.

23 Where did you grow up?

24 ANSWER: In Finland.

25 QUESTION: Whereabouts in Finland?

1 ANSWER: It's pretty north to Finland.

2 QUESTION: So that -- north of Helsinki?

3 ANSWER: Yeah, it's north. Almost in the Nordic
4 Pole.

5 QUESTION: Okay. And where did you go to
6 university?

7 ANSWER: Oulu University.

8 QUESTION: Okay. Are you married?

9 ANSWER: Yes.

10 QUESTION: Have children?

11 ANSWER: I have four kids, all boys.

12 QUESTION: All boys.

13 What do your children like to do for fun?

14 ANSWER: They like to skateboard.

15 QUESTION: Let -- let me talk a little bit about
16 your -- what you have done for a living in the last few
17 years.

18 First of all, what are you -- what are you doing
19 right now?

20 ANSWER: I'm heading the product creations in Nokia
21 in Silicon Valley.

22 QUESTION: And can you briefly describe your work
23 in -- in this position?

24 ANSWER: Yeah. I was sent here almost three years
25 ago, August 2011, when we -- Nokia wanted to create the

1 new -- new R&D center to focus on the future projects, so I
2 sent here from Finland and some other folks also.

3 QUESTION: Could you describe the organization in
4 the United States that you're currently working for?

5 ANSWER: Yeah. I'm working on CTO office,
6 reporting to Nokia CTO.

7 QUESTION: By CTO, that's the chief technology
8 officer?

9 ANSWER: Yeah.

10 QUESTION: And what exactly does the CTO office do
11 in Silicon Valley?

12 ANSWER: Some secret stuff.

13 QUESTION: Well, we don't want to get into that.

14 If you can give us a high level of public
15 information.

16 ANSWER: We are focusing on the future -- future
17 projects and future products and technology, so some
18 future-looking things.

19 QUESTION: And what's your role in developing those
20 future technologies for Nokia?

21 ANSWER: I'm heading the product creations, like
22 R&D director.

23 QUESTION: And who -- who do you report to at Nokia
24 here in the United States?

25 ANSWER: The CTO.

1 QUESTION: Okay. And the CTO, who does the CTO
2 report to?

3 ANSWER: CEO of Nokia.

4 QUESTION: The chairman of -- of Nokia?

5 ANSWER: Yeah, the CEO of Nokia.

6 QUESTION: I'm sorry. Okay.

7 Let's -- let's talk a little bit about what you've
8 been doing for -- in your career in telecommunications.

9 First of all, did you pursue education beyond high
10 school?

11 ANSWER: Yeah. I went to Oulu University and got
12 my master's degree in '93 --

13 QUESTION: Okay.

14 ANSWER: -- in telecommunications area.

15 QUESTION: Okay. Did you get any other degrees
16 from -- from university?

17 ANSWER: Yeah. I also post-graduated in '97. It's
18 a Finnish -- Finnish degree, like licentiate thesis, which is
19 not known here, but it's between the master thesis and doctor
20 thesis.

21 QUESTION: Okay. I think you said -- well, let me
22 ask you, what was your area of concentration for your
23 post-graduate degree?

24 ANSWER: I was -- I was like studying their
25 different modulation methods and -- and power amplifiers and

1 stuff like that.

2 QUESTION: Were you working at all while you were
3 studying at Oulu University?

4 ANSWER: Yeah. I went to Nokia in May '92; and
5 since that, I have been fully employed by Nokia, and in that
6 parallel levels, finishing my master thesis and then
7 post-graduate studies.

8 QUESTION: So how do you work that out so that you
9 can work full-time at Nokia while still pursuing your
10 graduate education?

11 ANSWER: Yeah. It was pretty normal at that time,
12 but then you work on -- study on the nights and weekends --

13 QUESTION: And so --

14 ANSWER: -- while working.

15 QUESTION: But you continued to work during the
16 daytime?

17 ANSWER: Yes.

18 QUESTION: And then you continue to work for Nokia.

19 And could you -- could you describe the sort of
20 work you did in -- like in the '97-'98 timeframe?

21 ANSWER: I was doing, at that time, like -- I was
22 in 3G -- 3G research and development, and I was mostly
23 working with modulation methods and power amplifiers and
24 stuff like that.

25 QUESTION: You say modulation -- modulation

1 methods. Can you describe, at just a high level, what that
2 means?

3 ANSWER: Modulation method is when you basically
4 transmit the signal from the mobile phone or the smartphone
5 to the base station. You modulate the radio waves so that
6 the information goes from one place to another.

7 QUESTION: Right. And by modulation methods,
8 you're changing the radio waves to -- to have information,
9 right?

10 ANSWER: Yeah, basically.

11 QUESTION: Okay. And that -- that period of time,
12 in the '97 time period, that was the time in which you made
13 the invention of the '321 patent, right?

14 ANSWER: Yeah, it was that timeframe.

15 QUESTION: What was your -- what was your title
16 when you -- in '97 when you got your degree and -- and
17 started -- and continued to work for Nokia?

18 ANSWER: Yeah. I think I was promoted as a
19 principal science -- scientist after I got my post-graduate
20 degree, somewhere in '97.

21 QUESTION: Okay. What exactly is a principal
22 scientist at Nokia?

23 ANSWER: It is basically a role when somebody is
24 doing enough research and contributions to the company, so
25 you get promoted to that role -- or that -- that title.

1 QUESTION: You got it fairly shortly after you did
2 your postgraduate -- you got your postgraduate degree?

3 ANSWER: Yeah. That year, I believe --

4 QUESTION: Is that --

5 ANSWER: -- '97.

6 QUESTION: Is that relatively early to be promoted
7 to becoming a principal scientist?

8 ANSWER: Yeah, quite -- quite early, yes.

9 QUESTION: In that time period, the '97-'98 time
10 period, did you -- did you -- did you have any awards or have
11 any recognition for your work at Nokia that you can tell us
12 about?

13 ANSWER: I was working in special products at that
14 time, and I got two times Inventor of the Year reward. I
15 think it was '98 and '99.

16 QUESTION: And that was -- let me just make sure I
17 got -- that was the Inventor of the -- so you were -- you
18 were named Inventor of the Year or -- could you describe that
19 a little bit what that entails?

20 ANSWER: Yeah. We have in this -- in our
21 organization, special products, we were -- we were naming the
22 people yearly, one people as an Inventor of the Year, so I
23 got that in two years.

24 QUESTION: I -- I understand you have actually --
25 you have actually invented a number of patents, right?

1 ANSWER: Yeah. I have -- I don't remember exactly
2 what, up to 20 patents.

3 QUESTION: Uh-huh.

4 And, apparently, you -- in that time period in '97,
5 you were -- you had filed the patent that ended up being the
6 '321 patent as well, right?

7 ANSWER: Yeah, that was '97. And I had some
8 other -- other patents also in those years.

9 QUESTION: Okay. So in total, how long have you
10 worked at Nokia?

11 ANSWER: 22 years.

12 QUESTION: Yeah. I'm just -- I'm not looking for
13 an exact time, but do you have a sense as to when it was that
14 you and your co-inventor came up with the -- the idea for
15 what became the '321 patent?

16 ANSWER: I don't remember the exact date for that.

17 QUESTION: Okay.

18 ANSWER: I didn't --

19 QUESTION: But it's presumably sometime in '97, I
20 guess.

21 ANSWER: Yeah. '97, yes.

22 QUESTION: Okay. And -- and I -- what I'd like to
23 do -- could you describe in simple terms just the basic idea
24 behind the '321 patent?

25 ANSWER: Uplink modulation method where the thing

1 is transmitted from smartphone or mobile phone to the base
2 station, and you -- it's basically uplink modulation scheme.

3 QUESTION: Uh-huh. And could you -- could you
4 explain what you mean by uplink modulation scheme?

5 ANSWER: Yeah. You basically follow the radio
6 signal certain way that it can -- the information can be
7 transferred from a mobile phone or smartphone to the base
8 station.

9 QUESTION: Okay.

10 ANSWER: In higher level -- yeah, higher level.

11 QUESTION: Okay. And -- and -- and are you aware
12 of any advantage of -- of using the '321 patent?

13 ANSWER: Yeah. I think it improves the power
14 amplifier efficiency.

15 QUESTION: And -- and the power amplifier, what
16 does that do in the cell phone?

17 ANSWER: It transmits the signal to the air to the
18 base station.

19 QUESTION: If I were an ordinary consumer with a --
20 with a smartphone, would I -- would I notice the improvement
21 in the -- in the '3 -- caused by the '321 patent?

22 ANSWER: Okay. Yeah. It improves the battery
23 life.

24 QUESTION: Do -- do you believe the '321 patent is
25 an important patent?

1 ANSWER: Yeah. All -- all the patents are
2 important, so I guess this is also important patent.

3 QUESTION: Were you proud of the invention of the
4 '321 patent?

5 ANSWER: I'm proud of that, as -- as of all my
6 patents.

7 QUESTION: Is the invention described in the '321
8 patent important?

9 ANSWER: I really don't know. I'm not -- I don't
10 know.

11 QUESTION: What problem does the invention
12 described in the '321 patent solve?

13 ANSWER: It improved the power amplifier
14 efficiency.

15 QUESTION: How did you become aware of this
16 problem?

17 ANSWER: You mean the power amplifier efficiency?

18 QUESTION: Yes.

19 How did -- how did you become aware of the problem
20 with power amplifier efficiency?

21 ANSWER: That's what -- what my master -- my
22 post-graduate study was all about. So I was studying
23 different modulation methods, how they affected the power
24 amplifier efficiency. That was my special area at that time,
25 like '96, before -- before the -- this one.

1 QUESTION: What advantage does your solution have
2 over techniques that were known at the time?

3 ANSWER: You need to -- you don't need to have
4 so -- you have -- you have better power amplifier efficiency,
5 which improves your battery life in your -- in your product
6 if you use the modulation method, power amplifier.

7 QUESTION: Can you quantify the improvement in
8 battery life that you say is due to the '321 patent?

9 ANSWER: I don't remember anymore.

10 QUESTION: Can you quantify the increase in power
11 amplifier efficiency which you say comes from the '321
12 patent?

13 ANSWER: It's too long time. I don't remember
14 anymore.

15 QUESTION: In what ways was your solution different
16 from the earlier technology in this area?

17 ANSWER: I don't remember anymore.

18 QUESTION: Would devices using your technique enjoy
19 a performance benefit over devices using prior techniques?

20 ANSWER: I believe so.

21 QUESTION: Did participation in the standards body
22 meetings give you any idea for the invention claimed in the
23 '321 patent?

24 ANSWER: I don't remember.

25 QUESTION: What contributions did you make to the

1 invention described and claimed in the '321 patent?

2 ANSWER: It's too long time to remember that
3 anymore.

4 QUESTION: What contributions did Mr. Pehkonen make
5 to the invention described and claimed in the '321 patent?

6 ANSWER: I don't remember the details anymore.

7 QUESTION: Have you ever received any awards or
8 recognition from anyone else besides Nokia for the '321
9 invention?

10 ANSWER: I don't think so.

11 QUESTION: Has Nokia ever advertised the '321
12 patent in any way?

13 ANSWER: I don't know.

14 QUESTION: Did you invent transmitting two parallel
15 channels?

16 ANSWER: I don't know.

17 QUESTION: Spreading data existed before the '321
18 patent was filed; is that correct?

19 ANSWER: As far as I remember, yes.

20 QUESTION: I want you to think about the invention
21 that's described in the '321 patent. Do you have that in
22 your mind?

23 ANSWER: As I have said earlier, I only remember
24 that it was a modulus -- uplink modulation method, and it
25 improved the power amplifier efficiency; but I don't remember

1 the details. It was 17 years ago, and I have been doing this
2 stuff for a long, long time, so...

3 QUESTION: Are you familiar with the concept of the
4 IQ plane?

5 ANSWER: IQ plane. I think I remember how it looks
6 like.

7 QUESTION: You didn't invent the IQ plane, did you?

8 ANSWER: No.

9 QUESTION: And you didn't invent representing
10 transmitted symbols on the IQ plane, did you?

11 ANSWER: No.

12 QUESTION: Can you identify any part of Claim 14
13 that you invented?

14 ANSWER: I don't remember the details anymore of
15 this invention.

16 QUESTION: To your knowledge, was the invention
17 ever used in UMTS or Japanese Third Generation Standard?

18 ANSWER: My understanding is that, yes.

19 QUESTION: Which standard is your invention used
20 in, in your understanding?

21 ANSWER: In UMTS. Actually, the Japanese and UMTS
22 standard, I think they merge to one standard later on.

23 QUESTION: But your best understanding of the term
24 "spreading code" sitting here today is that it widens the
25 spectrum?

1 ANSWER: Yeah, I'm not sure anymore. I don't know.

2 I don't remember this. It's a long time ago.

3 QUESTION: What does it mean to "spread data in
4 parallel using two spreading codes"?

5 ANSWER: I don't remember.

6 QUESTION: What does it mean to "change the power
7 level of data with respect to the power level of other data"?

8 ANSWER: Don't remember anymore.

9 QUESTION: Did you ever describe the invention
10 described in the '321 patent at a standards meeting?

11 ANSWER: I don't recall doing that.

12 QUESTION: To your knowledge, was Mr. Pehkonen
13 involved in the working group that's specified TS 25.213,
14 which is Exhibit 1?

15 ANSWER: He probably was, but I don't know --
16 remember exactly what, but I assume he was.

17 QUESTION: To your knowledge, did Mr. Pehkonen ever
18 make proposals to the working group that related to standard
19 TS 25.213?

20 ANSWER: That I don't remember.

21 QUESTION: Do you have any knowledge of how
22 Section 4 came to be in TS 25.213?

23 ANSWER: I don't have date and knowledge of that.

24 QUESTION: Did you have any investment in adding
25 Section 4 to TS 25.213?

1 ANSWER: As far as I remember, no.

2 QUESTION: To your knowledge, did Mr. Pehkonen have
3 any involvement in adding Section 4 to TS 25.213?

4 ANSWER: I assume he has some -- had some
5 involvement, but I don't remember the details.

6 QUESTION: So you assume that he was involved in
7 adding Section 4 to TS 25.213, but you don't --

8 ANSWER: That's the --

9 QUESTION: -- recall the details today?

10 ANSWER: -- that's the -- I assume, but there are
11 people in standardization, so I don't know who actually
12 did -- did contribute this, so maybe you have better
13 understanding about that.

14 QUESTION: Do you have any knowledge of anyone else
15 from Nokia being involved in adding Section 4 to TS 25.213?

16 ANSWER: I don't know the details who was involved.

17 QUESTION: Can you take a look at Figure 1 on
18 Page 8 of Exhibit 1?

19 ANSWER: Yes.

20 QUESTION: Are you familiar with Figure 1 of
21 Exhibit 1?

22 ANSWER: Not so familiar, but I believe I have some
23 days in this, but doesn't ring too much bells anymore.

24 QUESTION: What is your understanding of what is
25 depicted in Figure 1?

1 ANSWER: I think this is a modulation scheme, but I
2 don't remember the details anymore.

3 QUESTION: Do you have any knowledge of how Figure
4 1 came to be in TS 25.213?

5 ANSWER: No.

6 QUESTION: Did you have any involvement in adding
7 Figure 1 to TS 25.213?

8 ANSWER: No.

9 QUESTION: Do you have any knowledge of whether
10 anyone else at Nokia was involved in adding Figure 1 to TS
11 25.213?

12 ANSWER: Not detailed knowledge.

13 QUESTION: Do you have any knowledge of how Figure
14 1 came to be in TS 25.213?

15 ANSWER: No.

16 QUESTION: Did you have any involvement in adding
17 Figure 1 to TS 25.213?

18 ANSWER: No.

19 QUESTION: Other than the fact that you got paid
20 extra, do you have any reason to believe that the '321 patent
21 is essential to the 3GPP standards?

22 ANSWER: No.

23 QUESTION: Can you point to any claims of the '321
24 patent that you believe are infringed by the Apple products?

25 ANSWER: I don't know the details of the patent

1 anymore.

2 (Videoclip ends.)

3 THE COURT: All right. Proceed with your next
4 witness by deposition.

5 MS. DE MORY: Your Honor, Plaintiff calls Esa
6 Malkamaki by deposition.

7 THE COURT: All right. Proceed with this witness
8 by deposition.

9 (Videoclip played.)

10 QUESTION: Please state your full name and home
11 address for the record.

12 ANSWER: Esa Malkamaki. Home address is
13 Riippakoivuntie 17B, 02130, Espoo.

14 QUESTION: Can you give me a description of your
15 educational background after high school?

16 ANSWER: Yes. In 1989, I graduated as a Master of
17 Science. In 1992, as a Licentiate of Science, and in 1998, a
18 Doctor of Science, all -- all from Helsinki University of
19 Technology.

20 QUESTION: Do you have a job currently?

21 ANSWER: Yes.

22 QUESTION: Where are you employed?

23 ANSWER: I am employed by Nokia.

24 QUESTION: And how long have you been employed by
25 Nokia?

1 ANSWER: 22 years.

2 QUESTION: What is the invention described in the
3 '850 patent?

4 ANSWER: Do you want to have a general level or --

5 QUESTION: Let's start at -- at a high level.

6 ANSWER: It's about limiting the transmission rate
7 or, say, the rate at which packets are transmitted.

8 QUESTION: And -- well, let me ask it this way:
9 Why did you want to limit transmission rate, the transmission
10 rate for packets?

11 ANSWER: Well, at least two reasons, that there are
12 less often transmissions then you save power and you have --
13 so less overhead.

14 QUESTION: Okay. And how was your patent different
15 from earlier technology in the field?

16 ANSWER: Now, I must say that I don't remember
17 exactly what was the status of the art.

18 QUESTION: So you can't say one way or another what
19 the earlier technologies in this field were?

20 ANSWER: Well, not -- not at least in exhaustive.

21 QUESTION: Well, do you have any idea?

22 ANSWER: Well, at least one way to limit the rate
23 is to do it at an application level.

24 QUESTION: Does your patent limit the rate at the
25 application level?

1 ANSWER: No.

2 QUESTION: Okay. Does the technology in this
3 patent have any advantages over earlier technologies?

4 ANSWER: Yes.

5 QUESTION: And what are those advantages?

6 ANSWER: I don't remember exactly.

7 QUESTION: Can you quantify any of the performance
8 benefits of the patent?

9 ANSWER: Well, as I said, you can save power and
10 you can reduce the overhead.

11 QUESTION: Did you make a contribution to
12 developing the technology in this patent?

13 ANSWER: I don't remember.

14 QUESTION: So you don't remember any work that you
15 did on this patent?

16 ANSWER: Currently not -- not -- not details.

17 QUESTION: But as you sit here today, you -- you
18 don't remember, right?

19 ANSWER: Remember what?

20 QUESTION: Oh, remember any of the work that you
21 did on this patent?

22 ANSWER: Well, I remember working on this patent.

23 QUESTION: But before the '850 patent, for example,
24 there were other systems in the prior art that had minimum
25 times between the starts of transmissions, right?

1 ANSWER: Yes.

2 QUESTION: And there are two kinds of DRX and UMTS,
3 right? There's uplink DRX and downlink DRX?

4 ANSWER: The specification is typically written
5 from the device point of view. So uplink and uplink DRX,
6 discontinuous reception in uplink, is then basically the
7 reception is in the base station, and that is typically not
8 specified. So I am not sure if -- if that uplink DRX term is
9 used in that specific case.

10 QUESTION: But, okay. So uplink DTX and downlink
11 DRX are different things, right?

12 ANSWER: In principle, yes, but they -- I would say
13 that there are interrelations.

14 QUESTION: And when you came up with the idea, did
15 you think it was an important idea?

16 ANSWER: Yes.

17 QUESTION: Why?

18 ANSWER: Can you be more specific?

19 QUESTION: Well, why was it an important idea?
20 What made it important?

21 ANSWER: I would say that it solved -- solved a
22 relevant problem.

23 QUESTION: And what was that problem?

24 ANSWER: I don't remember exactly the details.

25 QUESTION: You don't remember the problem, but you

1 know it was important; is that right?

2 ANSWER: Yes.

3 QUESTION: And how many patents have issued under
4 your name?

5 ANSWER: I -- I understood that -- that around 50
6 U.S. patents.

7 QUESTION: Do all the patents that you just
8 mentioned relate to telecommunications technology?

9 ANSWER: Yes.

10 QUESTION: Would you say that intellectual property
11 is important to Nokia?

12 ANSWER: Yes.

13 QUESTION: And why is that?

14 ANSWER: Well, to protect our -- our technology
15 that we develop.

16 QUESTION: Let's first talk about the patent in
17 front of you. You have what's been marked as Defendant's
18 Exhibit 1, which is the '850 patent. Do you recognize this
19 document?

20 ANSWER: Yes.

21 QUESTION: And what is it?

22 ANSWER: It's a U.S. patent.

23 QUESTION: And patent attorneys often use the last
24 three digits to -- to -- when they -- when they talk about a
25 patent, so that we often call it the '850 patent. Is it okay

1 if I use '850 as shorthand?

2 ANSWER: Yes, yes.

3 QUESTION: Okay. Are you one of the inventors on
4 the '850 patent?

5 ANSWER: Yes.

6 QUESTION: And who were the other inventors on the
7 patent?

8 ANSWER: Benoist Sebire, Jukka Nauha, Anna-Mari
9 Vimpari and Matti Jokimies.

10 QUESTION: And -- and what's their relationship to
11 you, though, the other inventors in the patent?

12 ANSWER: They are my colleagues.

13 QUESTION: Did you or your co-inventors submit an
14 invention report to the IPR department related to the '850
15 patent?

16 ANSWER: Yes.

17 QUESTION: Okay. So you have Defendants' Exhibit 4
18 and Plaintiff's Exhibit 295 in front of you, right,
19 Dr. Malkamaki?

20 And let me for the record, since we haven't marked
21 or pre-marked Exhibit 295, let me identify it for the record.

22 It is a document that is entitled NC4 -- 46765
23 service specific transmission time control, and it has the
24 Bates numbers CORE-A-0200097 through 98.

25 And, again, that's exhibit number -- Plaintiff's

1 Exhibit No. 295.

2 First of all, let's look at Exhibit No. 4,
3 Dr. Malkamaki. Do you recognize this exhibit?

4 ANSWER: Yes.

5 QUESTION: What is it?

6 ANSWER: It is the invention report.

7 QUESTION: Is it invention report that led to the
8 '850 patent?

9 ANSWER: Yes.

10 QUESTION: Did you assist in the drafting of
11 Exhibit 295?

12 ANSWER: This one?

13 QUESTION: I'm sorry. Let me -- Exhibit 4, I am
14 saying the wrong exhibit. Exhibit 4?

15 ANSWER: Yes, yes.

16 QUESTION: Okay. Let's get back to the other
17 exhibit, Exhibit 295, and have you seen this exhibit before?

18 ANSWER: Yes.

19 QUESTION: And -- and what is it?

20 ANSWER: This is a copy from this invention report
21 tool that we were -- the invention report has been submitted.

22 QUESTION: Dr. Malkamaki, can you describe in
23 simple terms the basic idea of the '850 patent?

24 ANSWER: I can take it -- I mean, as discussed
25 early -- already earlier today, it's -- it's about limiting

1 the transmission rate for this HSUPA uplink channel.

2 QUESTION: What are the advantages of the invention
3 of the '850 patent?

4 ANSWER: Well, while limiting the rate of the
5 packet transmissions then -- then -- so meaning that we are
6 not sending packets so frequently, then -- then the UE power
7 is saved and then also we also control overheads is saved.

8 QUESTION: How does the invention reduce the
9 control overhead that you just mentioned?

10 ANSWER: I mean, to every transmission some --
11 some control overhead both -- both in downlink and uplink are
12 related and then if there are less transmissions then -- then
13 there is less overhead, so less control related to that --
14 that data. If you -- if you combine, say, if you transmit
15 two packets at the same time then you have one control.

16 QUESTION: Let me ask you, why is it important to
17 reduce the control overhead generally then?

18 ANSWER: Yeah, yeah, I mean, it's -- you -- you
19 have -- you are then transmitting less stuff over all the
20 air, so -- so the interference level is smaller and then
21 potentially you can have also more users served by the
22 network if -- if there is -- if less control is used per
23 user.

24 QUESTION: I think you also mentioned that -- that
25 the invention allows you to save battery power and I believe

1 you said that was in the -- in the UE, I think you said?

2 ANSWER: Yes.

3 QUESTION: And by UE, that stands for user
4 equipment, right?

5 ANSWER: Yes.

6 QUESTION: And which means -- what is that?

7 What -- what is user equipment?

8 ANSWER: Well, that's the term used in 3GPP for the
9 mobile terminal or the user device.

10 QUESTION: Right. What regular people call a cell
11 phone, right?

12 ANSWER: Yeah.

13 QUESTION: So -- so how does the invention of the
14 '850 patent save battery power in a mobile phone?

15 ANSWER: If the UE is transmitting less than it
16 can, then it saves power. But if it's -- there are longer
17 times when there is no -- no transmission or no high-powered
18 transmission.

19 QUESTION: And why is it important to -- to save
20 battery power in a mobile phone?

21 ANSWER: To get longer -- longer user times for the
22 terminal. The capacity of the batteries is limited.

23 QUESTION: Dr. Malkamaki, do you think the '850
24 patent is an important patent?

25 ANSWER: Yes.

1 (End of video clip.)

2 THE COURT: All right. Let's proceed with the next
3 witness by deposition.

4 MS. DE MORY: Jukka Vialen.

5 THE COURT: Let's proceed.

6 (Video clip playing.)

7 ANSWER: I've been living in Espoo about 28 years.

8 QUESTION: Are you from the Espoo area?

9 ANSWER: No. I was born in Kemijarvi in Lapland.

10 QUESTION: Lapland?

11 ANSWER: Finland, yes.

12 QUESTION: Lapland is the northern part of Finland?

13 ANSWER: Yes, the northern part of Finland where
14 Santa Claus lives. I mean, the real Santa Claus.

15 QUESTION: Are you married?

16 ANSWER: Yes.

17 QUESTION: Do you have about children?

18 ANSWER: Yes. I have two children, one daughter
19 and one son.

20 QUESTION: Did you have any education beyond high
21 school, Mr. Vialen?

22 ANSWER: Yes. I studied in University of
23 Technology at Helsinki.

24 QUESTION: And did you obtain a degree from that
25 university?

1 ANSWER: Yes. I have a master's degree on
2 telecommunications and software technology.

3 QUESTION: And -- and when did you get that degree?

4 ANSWER: 1993.

5 QUESTION: Any other degrees, college degrees
6 besides that?

7 ANSWER: No.

8 QUESTION: And why was it that you became
9 interested in studying telecommunications?

10 ANSWER: Well, I've been interested about computers
11 and mathematics and physics and electronics all of my life.

12 So I got my first computer at age of 12, started to
13 study programming then. And basically I didn't have any
14 other -- other choices, or let's say I didn't even think of
15 anything else other than going to the University of
16 Technology.

17 QUESTION: What -- what did you do after you
18 graduated from the university?

19 ANSWER: Excuse me?

20 QUESTION: What did do you after you graduated from
21 the university, what job did you get?

22 ANSWER: I joined Nokia Research Center in the
23 beginning of 1993, actually before I graduated, so I joined
24 it as a master's thesis worker. I did my master's thesis for
25 Nokia, and then I continued there after the graduation.

1 QUESTION: And -- and what part of Nokia did you
2 work at when you -- during your master's?

3 ANSWER: I worked for Nokia Research Center.

4 QUESTION: Did you -- what is Nokia Research
5 Center?

6 ANSWER: It was -- it's -- currently, there is
7 no -- I don't know if there's anymore. Okay. It was -- it
8 was central unit for Nokia providing research and also
9 resources for -- for Nokia Mobile Phones and Nokia Networks.
10 Those were the business units.

11 QUESTION: And how long did you work at Nokia
12 altogether?

13 ANSWER: Altogether, I worked at Nokia until 2009.
14 So about 16 years.

15 QUESTION: Okay. Let's talk about your time -- how
16 long were you at Nokia Research Center?

17 ANSWER: I left Nokia Research Center 2004 and
18 joined the Nokia Networks.

19 QUESTION: Okay. So when you -- when you made the
20 invention of the '143 patent, you were working at Nokia
21 Research Center?

22 ANSWER: Yes.

23 QUESTION: Okay. Let's talk a little bit of your
24 time at Nokia Research Center.

25 Would you give me kind of a high-level description

1 of what you did at Nokia Research Center for those 11 years?

2 ANSWER: I did a lot of things. When I started, I
3 was a software engineer making protocol software to various
4 radio systems, like GSM, DECT, and also ATM.

5 QUESTION: What did you do after that?

6 ANSWER: After that, I -- I joined -- I think it
7 was 1995. I joined European Union project called FRAMES.

8 That was -- that was a research project targeting
9 to provide input to future standardization of third
10 generation radio access for the UMTS.

11 QUESTION: What was your next project?

12 ANSWER: After that, I joined ETSI Group, that was
13 actually producing the standards, the UMTS Layer 2 group,
14 something like that.

15 QUESTION: What exactly is ETSI?

16 ANSWER: European Telecommunications Standards
17 Institute. So it's a -- it's a standardization organization.

18 QUESTION: And what does a standardization
19 organization do?

20 ANSWER: Standardization organization produces
21 standards that are used by -- for -- doing products,
22 interoperable products.

23 QUESTION: And what standard were you involved with
24 when you were working at Nokia Research Center?

25 ANSWER: I was mostly involved in UMTS radio

1 interface standards, more specifically to the radio
2 protocols, we called them.

3 QUESTION: And what -- what kind of products does
4 UMTS apply to?

5 ANSWER: Can you repeat?

6 QUESTION: What kind of products, what devices does
7 UMTS work with?

8 ANSWER: UMTS is used in cellular phones.

9 QUESTION: Okay.

10 ANSWER: In cellular networks.

11 QUESTION: And was that the time period in which
12 you made the invention of the '143 patent?

13 ANSWER: Yes.

14 QUESTION: Okay. What did you do after you -- what
15 was the next project you did at Nokia Research Center?

16 ANSWER: I participate -- in addition to this
17 front-line standardization work, I also worked in various
18 projects, research projects that standardization.

19 So we did research in many, many products, and I
20 was participating in most, leading some projects, and
21 participating in some other projects.

22 QUESTION: And why did you want to work for Nokia?

23 ANSWER: I think at that point of time when I was
24 looking for employer for making my master's thesis, Nokia
25 was, let's say, the best available company in Finland.

1 I mean, from -- from looking from the research and
2 telecommunication -- telecommunications area, there was
3 not -- not a better -- better choice. And I got a good offer
4 from Nokia Research Center, so I took it.

5 QUESTION: Okay. In your time at Nokia and NSN,
6 how many U.S. patents were you issued?

7 ANSWER: Approximately 30. It might not be the
8 exact number.

9 QUESTION: Do all those patents relate to that
10 telecommunications technology?

11 ANSWER: Yes.

12 QUESTION: Have you taught classes in the field of
13 telecommunications?

14 ANSWER: I have taught some private courses.

15 QUESTION: Could you describe what you did?

16 ANSWER: So I gave lecture on this UMTS radio
17 interface protocols for professionals.

18 QUESTION: Have you presented papers at conferences
19 in the field of telecommunications?

20 ANSWER: A few papers. Those were mostly from the
21 time when I was participating in the FRAMES project.

22 QUESTION: Okay. Have you written any books or
23 parts of books on telecommunications?

24 ANSWER: Yes. I have written a chapter on this
25 wideband CDMA, W-CDMA, for UMTS radio interface, a book

1 edited by Antii Toskala and Harri -- Harri -- I can't
2 remember his surname.

3 QUESTION: Okay. The name of the book was Wideband
4 CDMA for UMTS?

5 ANSWER: Yes.

6 QUESTION: Okay. And why were you chosen to write
7 that chapter?

8 ANSWER: I think at that point of time, when there
9 was a decision about writing this book, I was one of the
10 leading experts on this radio protocol area in -- Nokia.
11 Harri Holma was his name.

12 QUESTION: H-O-L-M-A, I think?

13 ANSWER: Yes.

14 QUESTION: I think I've marked as Exhibit 336 the
15 patent. I just want to ask you a couple of questions about
16 that. Let me get my copy first.

17 So you mentioned you're the inventor of the '336?

18 ANSWER: Yes.

19 QUESTION: You're the sole inventor of the patent?

20 ANSWER: Yes.

21 QUESTION: Approximately when did you come up with
22 the idea for the invention of the patent?

23 ANSWER: Somewhere in 1998. I cannot remember
24 exactly the date and the month.

25 QUESTION: Can you describe in simple terms the

1 basic idea of the patent, the '143 patent?

2 ANSWER: The basic idea behind this patent is
3 that -- is that the -- the network sends to a mobile station
4 to a cellular phone, a parameter. We call it the threshold
5 parameter. And the cellular phone can then use this
6 parameter -- uses this parameter to compare the -- or I'll
7 rephrase my answer.

8 So the cellular phone compares the amount of uplink
9 data in its buffers to this parameter; and when the amount of
10 data in its buffers exceeds this parameter, the cellular
11 phone may send a message to the network.

12 And based on this message, then the network makes a
13 decision or may make a decision to allocate a dedicated
14 channel to the -- to the mobile station.

15 QUESTION: Okay. Let's -- let's back up just a
16 little bit.

17 You were talking about two types of channels: A
18 dedicated channel and a common channel.

19 ANSWER: Yes.

20 QUESTION: Could you describe what those two things
21 mean?

22 ANSWER: So common channel is a -- is a radio
23 channel that's used for -- or may be used by all mobile
24 stations or cellular phones within one base station area. So
25 it's shared by all the mobile stations. There's no

1 allocation, so the mobile station can, at any point of time,
2 send -- send message or data.

3 QUESTION: Okay. So how is that different from a
4 dedicated channel?

5 ANSWER: A dedicated channel is a channel that is
6 allocated by the network to one specific mobile station for a
7 period of time or indefinitely until some message
8 de-allocates the channel.

9 But, anyway, that is a channel that can be used
10 only by this one mobile station at the time, and it has much
11 more capacity than these common channels.

12 QUESTION: Okay. You may have answered this. Why
13 would you use a common channel versus a dedicated channel or
14 vice versa?

15 ANSWER: The advantage of using a common channel,
16 especially in an uplink direction for a cellular phone user,
17 if you are, for example, browsing the Internet, and most --
18 as you probably know, most of the data traffic is downlink,
19 so from the network to your mobile station or to your laptop
20 or whatever you're using.

21 And then when you type a command or click something
22 and the mobile station has to send a small data packet
23 upwards, and if it can send it in a common channel like
24 random access channel, there's no need for any allocation
25 signaling, so it saves time; and also it saves resources from

1 the radio interface because the network don't have to
2 allocate a dedicated channel for this mobile station.
3 Whereas, when -- when using the dedicated channel, the
4 advantage is that there's much more capacity.

5 So if you, for example, want -- want to upload your
6 home video to Facebook via your mobile phone, then it's
7 better that the network allocates to your dedicated channel,
8 that you can use that. Because, otherwise, you would fill up
9 the whole common channel and block the other users in this
10 cell.

11 QUESTION: Okay. So now that we have some terms
12 down, could you recap what the -- what the invention -- your
13 invention is switching between those channels. Can you
14 explain again how your invention assists in that?

15 ANSWER: The idea is that -- is that there's a
16 parameter. I call it the threshold parameter. And -- and
17 the -- the mobile station gets this parameter from the
18 network, and it compares the amount of data in the uplink
19 buffers; and when the data amount exceeds its threshold
20 value, it asks for a channel from the network.

21 So it sends a message to the network, and then the
22 network can allocate the channel. It doesn't have to
23 allocate, but that indicates to the network that another
24 mobile station needs a channel. It has this much data. It's
25 more data than I have set as the threshold. So now I should

1 allocate it a dedicated channel.

2 QUESTION: Now, why is that an advantage? What's
3 the advantages of the invention?

4 ANSWER: The advantages -- I mean, without this
5 invention, the other way to do it would be that the mobile
6 station would send continuously information about its data
7 buffers, the amount of data in its data buffers.

8 And so that would mean continuous signaling on the
9 radio interface. So this invention reduces the signaling
10 load.

11 QUESTION: And how does that help an ordinary user
12 or a network or someone using a system?

13 ANSWER: Well, to minimize the signaling load is an
14 advantage for the network operator because he or she can
15 allocate more capacity in a radio interface for dedicated
16 channels for the actual traffic.

17 And as we all know, this -- both the radio
18 frequencies and the equipments are extremely expensive. So
19 it saves money -- money from the network operator. And of
20 course, later on, it might also mean that the network
21 operator can lower -- lower tariffs.

22 QUESTION: Costs, I guess?

23 ANSWER: Costs, yes.

24 QUESTION: From the side of the person using the
25 phone, are there any advantages for that, for the person

1 using a cell phone?

2 ANSWER: The -- the advantage for the -- let's say
3 a regular user of the cell phone is -- is that -- for
4 example, when you -- okay. Posing the Internet, you can --
5 with this invention, it's so you can use the random access
6 channel for small packets, and then you can indicate to the
7 network when you have more data to send. But I think -- I
8 think for normal user, it might mean that the network
9 operator -- because the network operator has less cost.

10 QUESTION: All right.

11 ANSWER: It might be mean lower costs also for the
12 end user.

13 One more thing is the battery life. So signaling
14 means that the -- that the terminal or the mobile station
15 have to switch on its -- its radio unit and send a message so
16 it uses battery life, it uses energy.

17 QUESTION: Would you consider this to be an
18 important patent?

19 ANSWER: Yes.

20 QUESTION: And why would you consider it to be
21 important?

22 ANSWER: Because -- because to my understanding, it
23 is part of the standards.

24 QUESTION: And what about the other advantages you
25 were mentioning before? Is that part of the reason why it's

1 important?

2 ANSWER: Excuse me?

3 QUESTION: The other advantages you mentioned
4 before, is that another reason why it's an important patent?

5 ANSWER: Yes, of course. It is also
6 technologically important.

7 QUESTION: Are you proud of the '143 patent?

8 ANSWER: Yes.

9 QUESTION: Now, the Bunsow firm is -- is
10 representing you; is that correct?

11 ANSWER: Yes.

12 QUESTION: Who's paying for your lawyers; do you
13 know?

14 ANSWER: Core Wireless.

15 QUESTION: Core Wireless is.

16 Are you being paid for your time?

17 ANSWER: Yes.

18 QUESTION: At what rate?

19 ANSWER: 90 Euros per hour.

20 QUESTION: How does that compare -- do you have a
21 regular consulting rate or testifying rate?

22 ANSWER: That is -- I think that is the regular
23 rate for me.

24 QUESTION: Why don't you take a couple of minutes
25 now and see if you can find a comparison of the buffer -- of

1 the data in the mobile buffer against a threshold.

2 ANSWER: Do you think that I can, in a couple of
3 minutes, read 10 pages of text that is written by a lawyer or
4 patent attorney?

5 I don't think I -- I can do it, but I'm not sure I
6 can answer your question. I would need more time to read it
7 through.

8 QUESTION: According to your invention, is channel
9 selection performed in the mobile or in the network or in
10 either?

11 ANSWER: There are -- there may be several reasons
12 why the network cannot allocate a dedicated channel; for
13 example, if there's -- if the capacity is full, there's no
14 channels available, or there's no capacity available. That's
15 why I used the term "may."

16 QUESTION: Can you point me anywhere in the '143
17 patent that says that the network "may" but doesn't "must
18 have" to allocate the dedicated channel when the message
19 comes from the mobile?

20 ATTORNEY: Objection, form.

21 ANSWER: As I said before, I have not written this
22 patent. I have looked at it very briefly yesterday. It's 15
23 years after I made this invention. So I cannot do it. I
24 cannot answer your question with this timeframe. If you give
25 me one week or two weeks time to really get through the

1 patent --

2 QUESTION: Okay. So this -- this -- this patent is
3 10 columns of text, right?

4 ANSWER: Yes, but there's lots of information
5 behind there.

6 QUESTION: Sure. Did -- did you say that you would
7 need a week to study the patent to determine whether anywhere
8 in the specification it says that the network can perform
9 channel selection?

10 ANSWER: Not necessarily a week. Maybe some hours.

11 QUESTION: And what I have marked here is a
12 document beginning with the Bates number CORE_A-00002876. Do
13 you recognize this document, Mr. Vialen?

14 ANSWER: Well, I read that it's my name, so it
15 seems to be an invention report, but I haven't seen this for
16 a long time.

17 QUESTION: Do you have any reason to doubt that you
18 authored this document?

19 ANSWER: No, no, it is my document.

20 QUESTION: Sure. Would it surprise you to hear
21 that Apple was told that this is the invention report where
22 you first recorded the idea claimed in the '143 patent?

23 ANSWER: This is my invention report?

24 QUESTION: Yes.

25 ANSWER: But whether it relates to this patent,

1 after 15 years I cannot be 100 percent sure.

2 QUESTION: Okay. Well, let's look at the name of
3 the invention. I'm reading from the top of Page 1 of
4 Exhibit 1, and it's: Controlling uplink packet data transfer
5 on common channels by using information received on -- on
6 BCCH.

7 ANSWER: Yes.

8 QUESTION: Did I read that correctly?

9 ANSWER: Yes.

10 QUESTION: Does that relate to the same field as
11 the '143 patent?

12 ANSWER: Yes, it relates to the same field.

13 QUESTION: Let's look at Page 2. And I'd like to
14 direct you to Section 2.4. Do you see that, sir?

15 ANSWER: Yes.

16 QUESTION: And that's entitled: The problem.
17 Right?

18 ANSWER: Uh-huh.

19 QUESTION: And in your experience drafting
20 invention disclosures for Nokia, would this be the place
21 where you would describe the problem your invention was
22 purporting to solve?

23 ANSWER: I have to answer that this is a 15 or
24 16-year-old invention report. I cannot remember exactly
25 what -- what was the exact form that we had used at that

1 point in time, which -- but anyway. Go ahead.

2 QUESTION: But you've no reason to doubt you are
3 the author of this invention report?

4 ANSWER: No.

5 QUESTION: And do you have any reason to doubt that
6 it is the invention report for the invention claimed in the
7 '143 patent?

8 ANSWER: It is in the same field, so it is possible
9 that it is exactly the same invention.

10 QUESTION: I'd like to mark the next exhibit,
11 Vialen 2. What I have marked is a document bearing Bates
12 number CORE_A-0200099. Do you recognize this document, sir?

13 ANSWER: Again, it's a 15 or 16-year-old document,
14 but it has my name and my previous address, so I believe this
15 is written by me.

16 QUESTION: And you see towards the top it says it's
17 signed by Jukka Vialen, right?

18 ANSWER: Yes.

19 QUESTION: And you have no reason to doubt the
20 authenticity of that, right?

21 ANSWER: No.

22 QUESTION: Are you familiar with this form? Even
23 if not this specific document, do you recall seeing documents
24 in this form?

25 ANSWER: This seems to be the form that, if I

1 recall correctly, one of the forms that we used in Nokia
2 to -- to make these invention reports.

3 QUESTION: And I think you said that the '143
4 patent was -- your first idea for it was in 1998; is that
5 right?

6 ANSWER: Yes.

7 QUESTION: And would you look at the document date
8 at the top, sir?

9 ANSWER: Yes.

10 QUESTION: And -- and that's from 1998, is it not?

11 ANSWER: Yes.

12 QUESTION: Okay. Did you review the claims before
13 they were filed?

14 ANSWER: Probably, yes, but I cannot remember.

15 QUESTION: Do you remember if the claims accurately
16 reflected your invention?

17 ANSWER: I said it's 15 years or 16 years since
18 this was done. So I cannot answer to your question honestly,
19 no.

20 QUESTION: So you're not prepared to tell me today
21 that the claims of the '143 patent accurately reflect your
22 invention, you're just not sure?

23 ANSWER: I can only repeat that it's 15 years that
24 I have done this. I probably reviewed it then, but I cannot
25 remember the details of that -- that discussion or that

1 reviewing anymore.

2 QUESTION: Sitting here today, you don't remember
3 what the invention you had back 15 years ago was, do you?

4 ANSWER: I think I've already answered you that the
5 idea of this invention is that there is a parameter that is
6 sent from the network to the mobile station, a threshold
7 parameter; and the mobile station may use this parameter
8 comparing its -- compare this parameter to the amount of data
9 in its buffers.

10 QUESTION: And you don't remember what you were
11 thinking when you wrote those invention documents, right?

12 ANSWER: It's been 15 years or 16 years since I
13 wrote this, and I cannot remember every sentence, every word
14 what I have written here.

15 QUESTION: Why, if you don't remember anything else
16 from 15 or 16 years ago, do you so lucidly remember that your
17 invention was that channel selection could occur in a
18 network?

19 ANSWER: I cannot answer your question.

20 QUESTION: Do you have any reason to doubt that you
21 were the author of Exhibit 5?

22 ANSWER: No.

23 QUESTION: Okay.

24 ANSWER: I've written hundreds of contributions to
25 these meetings, so no problem.

1 QUESTION: Let's go to Section 2.3. Would you read
2 the first sentence of that section?

3 ANSWER: During RACH/FACH state, UE itself should
4 be able to make a decision whether to send data packets on
5 RACH or whether to request a DCH with capacity request.

6 QUESTION: So in March of 1999, you proposed to
7 TSG-RAN Working Group 2 that the UE itself should be able to
8 make a decision whether to send packets on a common or
9 dedicated channel; is that right?

10 ANSWER: It says here during RACH/FACH state, UE
11 itself should be able to make decision whether to send data
12 packets on RACH or whether to request DCH with capacity
13 request.

14 QUESTION: Do you know if your proposal 99-112,
15 Exhibit 5, was adopted by Working Group 2 for incorporation
16 into the UMTS standard?

17 ANSWER: I don't remember.

18 QUESTION: Do you know whether the UMTS standard
19 currently has a functionality that allows a UE to be able to
20 make a decision whether to send data packets on RACH or
21 whether to request a DCH with a capacity request?

22 ANSWER: I don't know. I have not studied this
23 UMTS standard for a long time.

24 QUESTION: Okay. Exhibit 9 is a document bearing
25 the Bates number APLCW 0000066173. And the second document,

1 Document 10, is bearing the Bates number APLCW 0000066320.

2 Do you recognize Exhibits 9 and 10?

3 ANSWER: I can read the titles, but I don't
4 remember the details of these documents.

5 QUESTION: What do they appear to you to be?

6 ANSWER: The first seems to be a contribution to
7 SMG2 UMTS layer 2/3 experts meeting in January in Helsinki,
8 and the other one is Version 001 of this draft standard that
9 is numbered here as S2.03.

10 QUESTION: Did you attend the January 1999 meeting
11 in Helsinki, Finland?

12 ANSWER: If I recall correctly, yes.

13 QUESTION: So you didn't invent the idea of sending
14 on either a dedicated or a common channel, right?

15 ANSWER: Based on the information on this -- on
16 this patent application and its background information, it
17 says here that it can be sent either on a dedicated channel
18 or a common channel.

19 QUESTION: And based on your own recollection from
20 the 1998 and 1999 time period, is -- do you remember that it
21 was already known that you could use a dedicated or a common
22 channel to send data?

23 ANSWER: As of sitting here today, I would assume
24 that, yes, it was known because here it is said that the
25 background of the invention.

1 QUESTION: You didn't invent the idea of a mobile
2 phone transmitting packet data to a network, did you?

3 ANSWER: No.

4 QUESTION: You didn't invent the idea of using a
5 common or shared channel for transporting uplink packet data,
6 right?

7 ANSWER: No.

8 QUESTION: You didn't invent the idea of a mobile
9 being able to transmit uplink packet data using either a
10 dedicated or a common channel, right?

11 ANSWER: That's correct.

12 QUESTION: You didn't invent the idea of having the
13 mobile switch between a dedicated and a common channel based
14 on the data to be transmitted, did you?

15 ANSWER: That is very close to my invention -- that
16 is very close to my invention. It's in the same area, so I
17 cannot directly answer you yes or no because I don't fully
18 understand what you're asking for.

19 QUESTION: So you did not invent the idea of a --
20 of the mobile sending information to the network about the
21 size of the data being transmitted, right?

22 ANSWER: I can repeat. It's here in the background
23 of the invention, so implicitly, you may be correct.

24 QUESTION: So I'm going to ask you, did you invent
25 the idea of traffic volume measuring?

1 ANSWER: Well, based on the information that I have
2 here today, it seems that I did not invent that message. I
3 did not invent that message.

4 QUESTION: You didn't invent the idea of comparing
5 a current level of traffic volume to a threshold volume, did
6 you?

7 ANSWER: I think what I told in the morning that
8 was -- that is very close to the invention that I have made,
9 so this comparison is part of my -- my invention as I
10 remember it, in one example of the invention.

11 QUESTION: So you think that's part of what was
12 new, not part of what came before?

13 ANSWER: Well, based on my recollection, that is
14 the case.

15 QUESTION: Are you aware of any study quantifying
16 the benefits of your invention?

17 ANSWER: No, I'm not aware of such.

18 QUESTION: I'd like to ask you about one more thing
19 you said during your direct examination. And you were asked
20 by Mr. Allison --

21 (Videoclip ends.)

22 THE COURT: All right. I understand Plaintiffs
23 have one more video to play?

24 MS. DE MORY: Your Honor, this -- the last portion
25 is just a portion that needs to be played.

1 THE COURT: Of this witness?

2 MS. DE MORY: Of this witness, yes.

3 THE COURT: You're requesting that the Court seal
4 the courtroom for this remaining portion?

5 MS. DE MORY: Correct. Correct.

6 THE COURT: All right. Is there any objection from
7 the Defendant?

8 MR. MUELLER: No objection, Your Honor.

9 THE COURT: All right. At the Plaintiff's request,
10 the Court is going to order the courtroom sealed for the
11 remaining portion of this deposition. Accordingly, anyone in
12 the courtroom and behind the bar, not subject to the
13 protective order in this case, should exit the courtroom at
14 this time.

15 MR. ALBRITTON: Mr. Ward, is it okay if
16 Mr. Casanova stays here? Does he need to leave?

17 MR. BUNSOW: This is being done at Nokia's request;
18 and as much as I hate to do it, our rep left and I think
19 Mr. Casanova needs to leave.

20 THE COURT: If you're not subject to the protective
21 order, you need to exit the courtroom. It doesn't include
22 counsel or the jury, but it includes everybody else.

23 (Courtroom sealed.)

24 (This portion of the transcript is sealed and filed
25 under separate cover as Sealed Portion No. 1.)

1 (Courtroom unsealed.)

2 THE COURT: All right. It's 20 minutes until 6:00.

3 We're going to use this juncture to recess for the
4 day, Ladies and Gentlemen. I'm about to excuse you. When I
5 do, I'd like you to leave your juror notebooks on the table
6 in the jury room.

7 I want to remind you that this is probably the most
8 vulnerable point where you might be tempted to violate my
9 directive not to discuss the case when you get home this
10 evening.

11 I'll remind you again how important it is not to
12 discuss the case with anyone, including yourselves. I'm sure
13 you'll do that, but I just want to remind you one more time
14 because it is so very important.

15 My plan is for us to begin again in the morning at
16 approximately 8:30. I'd like to ask you to be assembled in
17 the jury room by about 8:20, and we'll try to start at 8:30
18 in the morning.

19 I hope you travel safely. Have a good evening.

20 With those instructions, you're excused for the
21 evening.

22 (Jury out.)

23 THE COURT: All right. Be seated, please.

24 I remind counsel that before I bring the jury in in
25 the morning, I'll ask each side to go to the podium and offer

1 a rendition of the items from the list of pre-admitted
2 exhibits that have been used before the jury during today's
3 portion of the trial, so be prepared for that first thing in
4 the morning.

5 I also understand that there's a proffer from the
6 Defendant; is that correct, Mr. Mueller?

7 MR. MUELLER: I'm not sure actually. I did have
8 one question about the exhibits, though, Your Honor, if I
9 might.

10 THE COURT: All right. My understanding was there
11 was a matter for record preservation we were going to take up
12 today.

13 MR. MUELLER: There -- there is. I'm not sure
14 where we have it, Your Honor; but if we can find it, we'll
15 get it to you. If not, we'll do it tomorrow morning.

16 May I ask a quick question about the exhibits?

17 THE COURT: You may ask a question.

18 MR. MUELLER: DX 224 and 228 we discussed this
19 morning before Court, and those are the prior art proposals.

20 I believe in light of Mr. Toskala's testimony, it's
21 been established that those types of records at ETSI are --
22 are available in a way that would qualify as prior art. From
23 this point forward, we would ask that they be treated as
24 such, including with our expert witnesses.

25 THE COURT: Is there objection from the Plaintiff?

1 MR. BUNSOW: Yes. Our objection continues to that,
2 Your Honor. There was nothing that Mr. Toskala said about
3 those. He wasn't even asked about them. If Apple felt that
4 he had relevant information directed to those particular
5 documents, they should -- had every opportunity to ask him
6 about them.

7 THE COURT: Well, I'm going to overrule the
8 Plaintiff's objection. The Court is satisfied that the
9 witness clearly identified these as being public and
10 available, such that they would meet that remaining element
11 to qualify as prior art.

12 So I'll recognize them as I go forward. They are
13 certainly subject to cross-examination through the remainder
14 of the trial.

15 Now, do you have the other matter that you
16 mentioned earlier?

17 MR. MUELLER: Your Honor, I believe -- I'll correct
18 this if it's incorrect, but just to try to expedite this.

19 The Plaintiffs objected to PX 63 and 69.

20 Magistrate Judge Love overruled that objection. By
21 agreement of the parties and with Your Honor's approval, we'd
22 respectfully request that there be a continuing objection
23 lodged to those exhibits and the information contained herein
24 on a continuing basis throughout the trial.

25 THE COURT: Is that your understanding, Mr. Bunsow?

1 Sounds like that counsel had met and conferred on this. If
2 that's not correct, I need some clarification.

3 MR. BUNSOW: And it -- I don't recall this instant,
4 and I haven't talked to Mr. Mueller about this for a number
5 of days, so I'd just like to be sure that I know what we're
6 talking about. And we can take a couple minutes now or I can
7 certainly --

8 THE COURT: You gentlemen take a couple minutes
9 now. I want to get this wrapped up.

10 MR. BUNSOW: All right.

11 THE COURT: Also, I'll remind both sides while
12 they're doing that, that the Courtroom Deputy needs an
13 updated list of exhibits; and I'll direct you to meet and
14 confer with her on what her requirements are.

15 Also, if you will get with my Law Clerks, these
16 splits on the depositions between Plaintiff's designations
17 and Defendant's, we'll give you an update of the amount of
18 time you've used first thing in the morning.

19 MR. BUNSOW: So we have conferred, Your Honor, and
20 we agree with that representation that --

21 THE COURT: All right.

22 MR. BUNSOW: -- their Defendant's -- Apple's
23 objections are overruled, the documents have come in, and
24 there's a continuing objection to them.

25 MR. MUELLER: And, Your Honor, if I might, it's

1 63 -- PX 63, PX 69, and PX 70.

2 MR. BUNSOW: Oh, yes.

3 THE COURT: Do you concur, Mr. Bunsow?

4 MR. BUNSOW: I do, Your Honor, yes.

5 THE COURT: All right. Then by agreement of -- by
6 agreement of counsel, there will be a running objection with
7 regard to those exhibits.

8 MR. MUELLER: Thank you, Your Honor.

9 THE COURT: All right. Anything further before we
10 recess for the day, Counsel?

11 MR. BUNSOW: Nothing from Core Wireless, Your
12 Honor.

13 MR. MUELLER: Nothing further, Your Honor.

14 THE COURT: Who do you intend to call first thing
15 in the morning, Mr. Bunsow?

16 MR. BUNSOW: We will be calling Dr. Jim Olivier.

17 THE COURT: All right. I remind you, Counsel, I'll
18 be available in chambers by 7:30 if there are any issues that
19 develop overnight. We'll plan to start as close to 8:30 in
20 the morning as we can.

21 With that, Counsel, we stand in recess until
22 tomorrow morning.

23 COURT SECURITY OFFICER: All rise.

24 (Court adjourned.)

25

CERTIFICATION

I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of our abilities.

/s/ _____
SHEA SLOAN, CSR, RPR
Official Court Reporter
State of Texas No.: 3081
Expiration Date: 12/31/16

March 9, 2015

/s/ _____
SHELLY HOLMES, CSR, TCRR
Deputy Official Court Reporter
State of Texas No.: 7804
Expiration Date 12/31/16